# Manulife Financial Corporation

# Management's Discussion and Analysis

**For the year ended December 31, 2014**

### Caution regarding forward-looking statements

This document contains forward-looking statements within the meaning of the "safe harbour" provisions of Canadian provincial securities laws and the U.S. Private Securities Litigation Reform Act of 1995. The forward-looking statements in this document include, but are not limited to, statements with respect to our 2016 management objectives for core earnings and core ROE, our 2016 goal for pre-tax run rate savings related to our Efficiency and Effectiveness Initiative, statements with respect to the anticipated benefits and the completion of and timing for completion of the acquisition of New York Life's retirement plan services business, and the benefits and costs of the acquisition of the Canadian-based operations of Standard Life plc, the anticipated effect of the acquisition on Manulife's strategy, operations and financial performance, including its EPS, earnings capacity, capital and MCCSR ratio, dividends, financial leverage, 2016 management objectives for core earnings and Core ROE, products, services and capabilities, earnings contributions, cost savings and transition and integration costs, revenue synergies. . The forward-looking statements in this document also relate to, among other things, our objectives, goals, strategies, intentions, plans, beliefs, expectations and estimates, and can generally be identified by the use of words such as "may", "will", "could", "should", "would", "likely", "suspect", "outlook", "expect", "intend", "estimate", "anticipate", "believe", "plan", "forecast", "objective", "seek", "aim", "continue", "goal", "restore", "embark" and "endeavour" (or the negative thereof) and words and expressions of similar import, and include statements concerning possible or assumed future results. Although we believe that the expectations reflected in such forward-looking statements are reasonable, such statements involve risks and uncertainties, and undue reliance should not be placed on such statements and they should not be interpreted as confirming market or analysts' expectations in any way. Certain material factors or assumptions are applied in making forward-looking statements, including that: the acquisition of New York Life's retirement plan services business will be completed in the first half of 2015; in respect of the acquisition of the Canadian-based operations of Standard Life plc, estimates for 2015 and 2016 EPS; estimated after-tax cost savings, including estimated savings as a result of synergies from areas such as information technology, real estate and personnel costs; estimated integration costs; revenue synergies increasing over time; and, in the case of our 2016 management objectives for core earnings and core ROE, the assumptions described under "Key Planning Assumptions and Uncertainties" in this document and actual results may differ materially from those expressed or implied in such statements. Important factors that could cause actual results to differ materially from expectations include but are not limited to: the factors identified in "Key Planning Assumptions and Uncertainties" in this document; general business and economic conditions (including but not limited to the performance, volatility and correlation of equity markets, interest rates, credit and swap spreads, currency rates, investment losses and defaults, market liquidity and creditworthiness of guarantors, reinsurers and counterparties); changes in laws and regulations; changes in accounting standards; our ability to execute strategic plans and changes to strategic plans; downgrades in our financial strength or credit ratings; our ability to maintain our reputation; impairments of goodwill or intangible assets or the establishment of provisions against future tax assets; the accuracy of estimates relating to morbidity, mortality and policyholder behaviour; the accuracy of other estimates used in applying accounting policies and actuarial methods; our ability to implement effective hedging strategies and unforeseen consequences arising from such strategies; our ability to source appropriate assets to back our long dated liabilities; level of competition and consolidation; our ability to market and distribute products through current and future distribution channels, including through our proposed collaboration arrangements with Standard Life plc; unforeseen liabilities or asset impairments arising from acquisitions and dispositions of businesses, including with respect to the acquisition of the retirement plan services business of New York Life and the Canadian-based operations of Standard Life plc; the realization of losses arising from the sale of investments classified as available-for-sale; our liquidity, including the availability of financing to satisfy existing financial liabilities on expected maturity dates when required; obligations to pledge additional collateral; the availability of letters of credit to provide capital management flexibility; accuracy of information received from counterparties and the ability of counterparties to meet their obligations; the availability, affordability and adequacy of reinsurance; legal and regulatory proceedings, including tax audits, tax litigation or similar proceedings; our ability to adapt products and services to the changing market; our ability to attract and retain key executives, employees and agents; the appropriate use and interpretation of complex models or deficiencies in models used; political, legal, operational and other risks associated with our non-North American operations; acquisitions and our ability to complete acquisitions including the availability of equity and debt financing for this purpose; the failure to realize some or all of the expected benefits of the acquisition of New York Life's retirement plan services business and the Canadian-based operations of Standard Life plc; the disruption of or changes to key elements of the Company's or public infrastructure systems; environmental concerns; and our ability to protect our intellectual property and exposure to claims of infringement. Additional information about material risk factors that could cause actual results to differ materially from expectations and about material factors or assumptions applied in making forward-looking statements may be found in the body of this document as well as under "Risk Management and Risk Factors" and "Critical Accounting and Actuarial Policies" in the Management's Discussion and Analysis and in the "Risk Management" note to the consolidated financial statements as well as under "Risk Factors" in our most recent Annual Information Form and elsewhere in our filings with Canadian and U.S. securities regulators. We do not undertake to update any forward-looking statements, except as required by law.

# 2014 Manulife Financial Corporation Management's Discussion and Analysis

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# Management's Discussion and Analysis

This Management's Discussion and Analysis ("MD&A") is current as of February 19, 2015.

## Overview

***Manulife is a leading Canada-based financial services company with principal operations in Asia, Canada and the United States. Manulife's vision is to be the most professional financial services organization in the world, providing strong, reliable, trustworthy and forward-thinking solutions for our clients' big significant financial decisions. Our international network of more than 87,000 employees and agents offers our clients a broad range of financial protection and wealth management products and services. We offer personal and corporate products to millions of customers across our three operating divisions: Asia, Canada and the United States.***

***Assets under management[1] by Manulife and its subsidiaries were $691 billion as at December 31, 2014.***

**Manulife's net income attributed to shareholders was $3.5 billion in 2014 compared with $3.1 billion in 2013.** Net income attributed to shareholders is comprised of core earnings[1] (consisting of items we believe reflect the underlying earnings capacity of the business), which amounted to $2.9 billion in 2014 compared with $2.6 billion in 2013, and items excluded from core earnings, of $0.6 billion in 2014 compared with $0.5 billion in 2013. Net income per common share for 2014 was $1.82, compared with $1.63 in 2013. Return on common shareholders' equity for 2014 was 11.9%, compared with 12.8% for 2013.

In 2014, we delivered strong growth in both net income and core earnings, announced two important acquisitions, and increased our dividend 19%. Our strategy is delivering results and this year continued a trend of improvement over the last five years. While the current macro environment, including low interest rates, produced headwinds, our results for 2014 were essentially on plan and show that we continue to make progress toward our financial goals.

In 2014, we established strong momentum in our life insurance sales and achieved our 25$^{th}$ consecutive quarter of record assets under management. Our business growth will be supplemented by the strategic acquisitions of the Canadian-based operations of Standard Life plc and, subject to receipt of regulatory approvals, New York Life's pension business. Despite the global economy continuing to face serious headwinds, our forward-thinking approach to our business will continue to help us in 2015 and beyond.

**Insurance sales**[1] were $2.5 billion in 2014, a decline of 10%[2] compared with 2013 largely due to a decrease in Group Benefits sales reflecting our disciplined approach to pricing in the very competitive market. Excluding Group Benefits, insurance sales increased 13% compared with the prior year. In Asia, we achieved record insurance sales on a constant currency basis, up 31% over 2013, driven by continued momentum in corporate products in Japan, successful sales campaigns and product launches in Hong Kong, and double digit sales growth in our Asia Other businesses. In Canada, retail insurance sales grew reflecting the successful launch of a simplified universal life solution. In the U.S., insurance sales increased sequentially in each quarter of the year, but decreased compared with 2013 amid a sluggish estate planning market.

**Wealth sales**[1] were a record $52.6 billion in 2014, a 1% increase from the previous record reported in 2013. Excluding new bank loan volumes (which we include in wealth sales), wealth sales increased 3% over the prior year, with solid contributions from all three geographies. In Asia, we achieved record wealth sales on a constant currency basis that trended upward throughout the year as a result of new product launches, marketing campaigns, and improved market sentiment. In Canada, wealth sales excluding new bank loan volumes increased, led by our second highest annual group retirement sales on record. In the U.S., mutual fund sales continued to be strong and outpaced the industry[3], outweighing the negative impact of intensified competitive pressures in the group retirement market.

**The Minimum Continuing Capital and Surplus Requirements ("MCCSR") ratio** for The Manufacturers Life Insurance Company ("MLI") was 248% at the end of 2014, the same ratio as at December 31, 2013. MFC's financial leverage ratio was 27.8% at December 31, 2014 compared with 31.0% at the end of 2013.

## Strategic Direction

In 2014, we made significant progress towards our strategic priorities:

- Developing our Asian opportunity to the fullest – Achieved record insurance sales on a constant currency basis with new product launches and channel expansion accelerating our growth, notably in Japan (+60%), China (+28%) and Hong Kong (+15%); delivered record wealth sales in line with the levels set in 2013; strengthened our bancassurance footprint by entering into nine new insurance distribution agreements, two of which are exclusive.
- Growing our wealth and asset management businesses around the world – Achieved our 25$^{th}$ consecutive quarter of record assets under management; delivered record institutional sales at Manulife Asset Management across a broad variety of mandates, including $1.1 billion in mandates from our Private Markets business in its inaugural year; generated over $18 billion of net flows into our asset management and group retirement businesses.

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1 This item is a non-GAAP measure. See "Performance and Non-GAAP Measures" below.

2 Growth (declines) in sales, premiums and deposits and assets under management are stated on a constant currency basis. Constant currency basis is a non-GAAP measure. See "Performance and Non-GAAP Measures" below.

3 Strategic Insight: ICI Confidential. Direct Sold mutual funds, fund-of-funds and ETF's are excluded. Organic sales growth rate is calculated as: net new flows divided by beginning period assets. Industry data through December 2014.

- Building on our balanced Canadian business – Announced the acquisition of the Canadian-based operations of Standard Life plc, which closed on January 30, 2015; delivered solid Group Retirement Solutions and mutual fund sales; generated Retail Insurance sales growth, driven by the successful launch of a simplified universal life product; reported lower lending volumes at Manulife Bank and a decline in Group Benefits sales amid competitive pressures.

- Continuing to drive sustainable earnings and opportunistic growth in the U.S. – Announced our agreement to acquire New York Life's Retirement Plan Services ("RPS") business; delivered record wealth sales with strong mutual fund volumes outweighing the negative impact of intensified competitive pressures in the RPS market; continued to build momentum in insurance sales over the course of the year, driven by product changes.

Our strategy builds on these priorities and will set the course for attaining our vision of "helping people with their significant financial decisions".

The first theme of our strategy is to develop more holistic and long-lasting customer relationships. Our strategy is to:
- Build a 360-degree view of our customer to engage them in more personalized and thoughtful sales conversations.
- Deliver a simpler, more customer needs-focused experience.
- Equip our distributors with tools that enable them to effectively meet a broader range of customer needs.
- And where appropriate, grow the channels where we have more control of the end-to-end customer experience and where a broader range of customer needs can be met. This includes growing direct channels and advice channels that can be accessed anytime, anywhere.

Our second theme is to continue to build and integrate our global wealth and asset management businesses in existing markets, as well as expand our investment and sales offices into new markets in order to meet the needs of our customers, from individual investors to institutions such as pension funds and sovereign wealth funds. The need for wealth and asset management services is growing around the world, including locations where we do not currently have operations, and the opportunity for asset managers to add value also exists in those locations. We will not restrict ourselves to geographies where we currently have, or expect to have, insurance operations.

Our third theme is to leverage skills and experience across our international operations. If we are going to get maximum advantage from the investments we are making, we need to amortize our investment across our global organization.

# Financial Performance

| As at and for the years ended December 31, (C$ millions, unless otherwise stated) | **2014** | 2013 | 2012 |
|---|---|---|---|
| **Net income attributed to shareholders** | **$ 3,501** | $ 3,130 | $ 1,810 |
| Preferred share dividends | **(126)** | (131) | (112) |
| **Common shareholders' net income** | **$ 3,375** | $ 2,999 | $ 1,698 |
| **Reconciliation of core earnings to net income attributed to shareholders:** | | | |
| **Core earnings**[1] | **$ 2,888** | $ 2,617 | $ 2,249 |
| Investment-related experience in excess of amounts included in core earnings | **359** | 706 | 949 |
| **Core earnings and investment-related experience in excess of amounts included in core earnings** | **$ 3,247** | $ 3,323 | $ 3,198 |
| Other items to reconcile core earnings to net income attributed to shareholders: | | | |
| Direct impact of equity markets and interest rates and variable annuity guarantee liabilities | **412** | (336) | (582) |
| Changes in actuarial methods and assumptions | **(198)** | (489) | (1,081) |
| Disposition of Taiwan insurance business[2] | **12** | 350 | (50) |
| Other items | **28** | 282 | 325 |
| **Net income attributed to shareholders** | **$ 3,501** | $ 3,130 | $ 1,810 |
| Basic earnings per common share (C$) | **$ 1.82** | $ 1.63 | $ 0.94 |
| Diluted earnings per common share (C$) | **$ 1.80** | $ 1.62 | $ 0.92 |
| Diluted core earnings per common share (C$)[1] | **$ 1.48** | $ 1.34 | $ 1.15 |
| Return on common shareholders' equity ("ROE") (%) | **11.9%** | 12.8% | 7.8% |
| Core ROE (%)[1] | **9.8%** | 10.6% | 9.8% |
| Sales[1] | | | |
| Insurance products[3] | **$ 2,544** | $ 2,757 | $ 3,279 |
| Wealth products | **$ 52,604** | $ 49,681 | $ 35,940 |
| Premiums and deposits[1] | | | |
| Insurance products | **$ 25,015** | $ 24,549 | $ 24,221 |
| Wealth products | **$ 72,986** | $ 63,701 | $ 51,280 |
| Assets under management (C$ billions)[1] | **$ 691** | $ 599 | $ 531 |
| Capital (C$ billions)[1] | **$ 39.6** | $ 33.5 | $ 29.2 |
| MLI's MCCSR ratio | **248%** | 248% | 211% |

[1] This item is a non-GAAP measure. For a discussion of our use of non-GAAP measures, see "Performance and Non-GAAP Measures" below.

[2] The $12 million amount in 2014 relates primarily to closing adjustments to the 2013 disposition of our Taiwan insurance business sale and the $50 million charge in 2012 represents closing adjustments to the 2011 disposition of our Life Retrocession business.

[3] Insurance sales have been adjusted to exclude Taiwan for all periods due to the sale of our Taiwan insurance business at the end of 2013.

## Analysis of Net Income

**Manulife's full year 2014 net income attributed to shareholders was $3.5 billion compared with $3.1 billion for full year 2013.** Net income attributed to shareholders is comprised of core earnings (consisting of items we believe reflect the underlying earnings capacity of the business), which amounted to $2.9 billion in 2014 compared with $2.6 billion in 2013, and items excluded from core earnings, which amounted to $0.6 billion in 2014 compared with $0.5 billion in 2013.

The $271 million increase in core earnings compared with 2013 was due to higher fee income on higher asset levels in our wealth management businesses, lower net hedging costs and the favourable impact of a stronger U.S. dollar, partially offset by unfavourable policyholder experience in the U.S. On a divisional basis, Asia core earnings increased 16% over the prior year after adjusting for increased dynamic hedging costs (there is a corresponding decrease in macro hedging costs in the Corporate and Other segment), changes in currency rates and the sale of our Taiwan insurance business at the end of 2013. Core earnings increased by 2% over the prior year in Canada and declined by 15% in the U.S. primarily due to the second order impact of market factors along with risk management activities and unfavourable policyholder experience. The second order impact of market factors included the unfavourable impact that declines in the yield curve and corporate spreads had on the release of provisions for adverse deviation in the insurance business and the impact that higher equity markets and risk management activities had on releases of margins in the variable annuity business. The first order impact of market factors is included in the direct impact of equity markets and interest rates and is excluded from core earnings.

The $100 million year-over-year increase in items excluded from core earnings was primarily due to a $291 million reduction in charges related to changes in actuarial methods and assumptions and a $748 million increase from the direct impact of equity markets and interest rates and variable annuity guarantee liabilities, partially offset by one-time items in 2013 and lower investment-related experience in 2014. In addition, while investment-related experience was strong in both years, the $359 million gain reported in 2014 (in excess of the $200 million of investment gains included in core earnings) was $347 million lower than in 2013.

The investment-related experience gains are a combination of reported investment experience as well as the impact of investing activities on the measurement of our policy liabilities. Investment-related experience gains in 2014 of $559 million (2013 – $906 million), including the $200 million reported in core earnings, were composed of: $667 million (2013 – $571 million) primarily related to the impact of investing activities (both fixed income and alternative long-duration assets) on the measurement of our policy liabilities; and $103 million (2013 – $162 million) due to favourable credit experience relative to our long-term assumptions, partly offset by the $211 million (2013 – $55 million) impact of fair value related losses on alternative long-duration assets.

Investment-related experience gains in 2013 also included $228 million related to asset allocation activities that enhanced surplus liquidity and resulted in higher yielding assets in the respective liability segments.

The table below reconciles 2014 net income attributed to shareholders of $3,501 million to core earnings of $2,888 million.

| **For the years ended December 31,**<br>(C$ millions, unaudited) | **2014** | 2013 | 2012 |
|---|---|---|---|
| **Core earnings**[1] | | | |
| Asia Division[2] | **$ 1,008** | $ 921 | $ 963 |
| Canadian Division[2] | **927** | 905 | 835 |
| U.S. Division[2] | **1,383** | 1,510 | 1,085 |
| Corporate and Other (excluding expected cost of macro hedges and core investment gains) | **(446)** | (506) | (345) |
| Expected cost of macro hedges[2],[3] | **(184)** | (413) | (489) |
| Investment-related experience in core earnings[4] | **200** | 200 | 200 |
| **Total core earnings** | **$ 2,888** | $ 2,617 | $ 2,249 |
| Investment-related experience in excess of amounts included in core earnings[4] | **359** | 706 | 949 |
| **Core earnings and investment-related experience in excess of amounts included in core earnings** | **$ 3,247** | $ 3,323 | $ 3,198 |
| Changes in actuarial methods and assumptions[5] | **(198)** | (489) | (1,081) |
| Direct impact of equity markets and interest rates and variable annuity guarantee liabilities[6] (see table below) | **412** | (336) | (582) |
| Disposition of Taiwan insurance business in 2013[7] | **12** | 350 | (50) |
| Impact of in-force product changes and recapture of reinsurance treaties[8] | **24** | 261 | 260 |
| Material and exceptional tax related items[9] | **4** | 47 | 322 |
| Goodwill impairment charge | **–** | – | (200) |
| Restructuring charge related to organizational design[10] | **–** | (26) | (57) |
| **Net income attributed to shareholders** | **$ 3,501** | $ 3,130 | $ 1,810 |

[1] This item is a non-GAAP measure. See "Performance and Non-GAAP Measures" below.

[2] The decrease in expected cost of macro hedges in 2014 compared with 2013 was partially offset by an increase in dynamic hedging costs included in Asia, Canada and U.S. core earnings.

[3] The 2014 net loss from macro equity hedges was $304 million and consisted of a $184 million charge related to the estimated expected cost of the macro equity hedges relative to our long-term valuation assumptions and a $120 million charge because actual markets outperformed our valuation assumptions (included in the direct impact of equity markets and interest rates and variable annuity guarantee liabilities below).

[4] As outlined under "Critical Accounting and Actuarial Policies" below, net insurance contract liabilities under IFRS for Canadian insurers are determined using the Canadian Asset Liability Method ("CALM"). Under CALM, the measurement of policy liabilities includes estimates regarding future expected investment income on assets supporting the policies. Experience gains and losses are reported when current period activity differs from what was assumed in the policy liabilities at the beginning of the period. These gains and losses can relate to both the investment returns earned in the period, as well as to the change in our policy liabilities driven by the impact of current period investing activities on future expected investment income assumptions. The direct impact of interest rates and equity markets is reported separately. The inclusion of up to $200 million per annum of favourable investment experience will be increasing to $400 million per annum commencing 1Q15. See "Performance and Non-GAAP Measures" below for more information.

[5] Of the $198 million charge for change in actuarial methods and assumptions in 2014, $69 million was reported in the third quarter as part of the comprehensive annual review of valuation assumptions. Over the full year, charges due to lapse assumption changes, and updates to actuarial standards related to segregated fund bond calibration criteria, were partially offset by benefits due to refinements related to the projection of asset and liability cash flows, including an in depth review of the modelling of future tax cash flows for our U.S. Insurance business, updates to mortality and morbidity assumptions, and updates to actuarial standards related to economic reinvestment assumptions.

[6] The direct impact of equity markets and interest rates is relative to our policy liability valuation assumptions and includes changes to interest rate assumptions, as well as experience gains and losses on derivatives associated with our macro equity hedges. We also include gains and losses on the sale of available-for-sale ("AFS") debt securities as management may have the ability to partially offset the direct impacts of changes in interest rates reported in the liability segments. See table below for components of this item.

[7] The $12 million amount in 2014 relates primarily to closing adjustments to the 2013 disposition of our Taiwan insurance business sale and the $50 million charge in 2012 represents closing adjustments to the Life Retrocession sale in 2011.

[8] The 2014 amount relates to the recapture of a reinsurance treaty in Canada. The 2013 gain of $261 million includes the impact on the measurement of policy liabilities of policyholder-approved changes to the investment objectives of separate accounts that support our Variable Annuity products in the U.S. and a reinsurance recapture transaction in Asia. The $260 million gain in 2012 largely relates to a recapture of a reinsurance treaty and in-force segregated funds product changes in Canada.

[9] The $4 million gain in 2014 relates to tax rate changes in Asia. The 2013 tax item primarily reflects the impact on our deferred tax asset position of Canadian provincial tax rate changes. Included in the 2012 tax items are $264 million of material and exceptional U.S. tax items and $58 million for changes to tax rates in Japan.

[10] The restructuring charge is related to severance, pension and consulting costs for the Company's Organizational Design Project, which was completed in the second quarter of 2013.

The net gain (loss) related to the direct impact of equity markets and interest rates and variable annuity guarantee liabilities in the table above is attributable to:

| **For the years ended December 31,**<br>(C$ millions, unaudited) | **2014** | 2013 | 2012 |
|---|---|---|---|
| Direct impact of equity markets and variable annuity guarantee liabilities[1] | **$ (182)** | $ 458 | $ 851 |
| Fixed income reinvestment rates assumed in the valuation of policy liabilities[2] | **729** | (276) | (740) |
| Sale of AFS bonds and derivative positions in the Corporate and Other segment | **(40)** | (262) | (16) |
| Charges due to lower fixed income ultimate reinvestment rate ("URR") assumptions used in the valuation of policy liabilities[3] | **(95)** | (256) | (677) |
| **Direct impact of equity markets and interest rates and variable annuity guarantee liabilities** | **$ 412** | $ (336) | $ (582) |

[1] In 2014, gross equity exposure losses of $2,179 million and gross equity hedging charges of $120 million from macro hedge experience were partially offset by gains of $2,117 million from dynamic hedging experience which resulted in a loss of $182 million.

[2] The gain in 2014 for fixed income reinvestment assumptions was driven by the favourable impact on the measurement of policy liabilities of changes in yield curves primarily in the U.S. and Canada.

[3] The periodic URR charges have ceased effective 4Q14 due to revisions to the Canadian Actuarial Standards of Practice related to economic reinvestment assumptions.

### Earnings per Common Share and Return on Common Shareholders' Equity

Net income per common share for 2014 was $1.82, compared with $1.63 in 2013. Return on common shareholders' equity for 2014 was 11.9%, compared with 12.8% for 2013.

### Revenue

Revenues include (i) premiums received on life and health insurance policies and fixed annuity products, net of premiums ceded to reinsurers; (ii) investment income comprised of income earned on general fund assets, credit experience and realized gains and losses on assets held in the Corporate segment; (iii) fee and other income received for services provided; and, (iv) realized and unrealized gains (losses) on assets supporting insurance and investment contract liabilities and on macro hedging program. Premium and deposit equivalents from administrative services only ("ASO"), as well as deposits received by the Company on investment contracts such as segregated funds, mutual funds and managed funds are not included in revenue; however, the Company does receive fee income from these products, which is included in revenue. These fee generating deposits and ASO premium and deposit equivalents are an important part of our business and as a result, revenue does not fully represent sales and other activity taking place during the respective periods. The premiums and deposits metric below includes these factors.

For 2014, revenue before realized and unrealized gains (losses) was $37.4 billion, an increase of 5% over 2013, after adjusting for the one-time gain on the sale of our Taiwan insurance business in 4Q13. The increase was driven by higher fee income due to higher asset levels in our wealth management businesses and the strengthening of the U.S. dollar. Net premium income on a constant currency basis increased in Asia by 12%, but declined in Canada and the U.S. by 2% and 13%, respectively.

Net unrealized and realized gains (losses) on assets supporting insurance and investment contract liabilities and on our macro hedging program primarily related to the impact of movements in interest rates on the fair value of our bond and fixed income derivative holdings. In 2014, the general decrease in interest rates resulted in an increase in revenue while in 2013 the increase in interest rates resulted in a decrease in revenue.

See "Financial Performance – Impact of Fair Value Accounting" below.

#### Revenue

| For the years ended December 31, (C$ millions, unaudited) | **2014** | 2013 | 2012 |
|---|---|---|---|
| Gross premiums | **$ 25,226** | $ 24,892 | $ 24,617 |
| Ceded premiums | **(7,343)** | (7,382) | (7,194) |
| Net premium income prior to fixed deferred annuity coinsurance | **$ 17,883** | $ 17,510 | $ 17,423 |
| Premiums ceded relating to fixed deferred annuity coinsurance | **–** | – | (7,229) |
| Investment income | **10,808** | 9,860 | 9,802 |
| Other revenue[(1)] | **8,739** | 8,876 | 7,289 |
| Total revenue before net realized and unrealized gains (losses) on assets supporting insurance and investment contract liabilities and on macro hedging program | **$ 37,430** | $ 36,246 | $ 27,285 |
| Realized and unrealized gains (losses) on assets supporting insurance and investment contract liabilities and on macro hedging program | **17,092** | (17,607) | 1,825 |
| **Total revenue** | **$ 54,522** | $ 18,639 | $ 29,110 |

(1) Other revenue in 2013 includes a pre-tax gain of $479 million on the sale of our Taiwan insurance business.

### Premiums and Deposits

Premiums and deposits[4] is an alternate measure of our top line growth, as it includes all new policyholder cash flows and, unlike total revenue, is not impacted by the volatility created by fair value accounting. Premiums and deposits for insurance products were $25.0 billion in 2014, down 1% on a constant currency basis compared with 2013. Premiums and deposits for wealth products were $73.0 billion in 2013, an increase of 9% on a constant currency basis over 2013.

### Assets under Management

Assets under management[4] as at December 31, 2014 were a record $691 billion, an increase of $92 billion, or 9% on a constant currency basis, compared with December 31, 2013. The increase was largely attributable to growth in our asset management business, favourable equity markets, and the fair value accounting impact of the reduction in interest rates on fixed income investments.

#### Assets under Management

| As at December 31, (C$ millions) | **2014** | 2013 | 2012 |
|---|---|---|---|
| General fund | **$ 269,310** | $ 232,709 | $ 227,932 |
| Segregated funds net assets[(1)] | **256,532** | 239,871 | 209,197 |
| Mutual funds, institutional advisory accounts and other[(1),(2)] | **165,287** | 126,353 | 94,029 |
| **Total assets under management** | **$ 691,129** | $ 598,933 | $ 531,158 |

(1) Segregated funds net assets, mutual fund assets and other funds are not available to satisfy the liabilities of the Company's general fund.

(2) Other funds represent pension funds, pooled funds, endowment funds and other institutional funds managed by the Company on behalf of others.

4 This item is a non-GAAP measure. See "Performance and Non-GAAP Measures" below.

### Capital

Total capital[5] was $39.6 billion as at December 31, 2014 compared with $33.5 billion as at December 31, 2013, an increase of $6.1 billion. The increase included net income of $3.5 billion, currency impacts of $1.9 billion and net capital issued of $1.0 billion (excludes $1.0 billion redemption of senior debt of MFC as it is not included in the definition we use for capital), partially offset by cash dividends of $0.9 billion over the period.

The Minimum Continuing Capital and Surplus Requirements ("MCCSR") ratio for The Manufacturers Life Insurance Company ("MLI") was 248% at the end of 2014, consistent with the ratio at the end of 2013. MFC's financial leverage ratio was 27.8% at December 31, 2014 compared with 31.0% at the end of 2013.

During 2014, we raised $1.8 billion of new financing and $1.8 billion matured or was redeemed, including $1.0 billion of senior debt.

We also issued $2.26 billion of subscription receipts that were exchanged for common shares after year end, as a result of the closing of the acquisition of the Canadian-based operations of Standard Life plc on January 30, 2015. On a pro-forma basis, had the transaction closed on December 31, 2014, the MCCSR ratio would be in the range of 235% to 240% and the financial leverage ratio would have been approximately 27.1%. The impact on the MCCSR ratio will be partially offset by the favourable impact of change in the MCCSR guidelines effective January 1, 2015.

### Impact of Fair Value Accounting

Fair value accounting policies affect the measurement of both our assets and our liabilities. The difference between the reported amounts of our assets and liabilities determined as of the balance sheet date and the immediately preceding balance sheet date in accordance with the applicable mark-to-market accounting principles is reported as investment-related experience and the direct impact of equity markets and interest rates and variable annuity guarantees that are dynamically hedged, each of which impacts net income (see "Analysis of Net Income" above).

We reported $17.1 billion of net realized and unrealized gains in investment income in 2014. These amounts were driven by the mark-to-market impact of the decrease in interest rates on our bond and fixed income derivative holdings and the increase in equity markets on our equity futures in our macro and dynamic hedging program, as well as other items.

As outlined under "Critical Accounting and Actuarial Policies" below, net insurance contract liabilities under IFRS are determined using the Canadian Asset Liability Method ("CALM"), as required by the Canadian Institute of Actuaries. The measurement of policy liabilities includes the estimated value of future policyholder benefits and settlement obligations to be paid over the term remaining on in-force policies, including the costs of servicing the policies, reduced by the future expected policy revenues and future expected investment income on assets supporting the policies. Investment returns are projected using the current asset portfolios and projected reinvestment strategies. Experience gains and losses are reported when current period activity differs from what was assumed in the policy liabilities at the beginning of the period. We classify gains and losses by assumption type. For example, current period investing activities that increase (decrease) the future expected investment income on assets supporting the policies will result in an investment-related experience gain (loss).

### Public Equity Risk and Interest Rate Risk

At December 31, 2014, the impact of a 10% decline in equity markets was estimated to be a charge of $480 million and the impact of a 50 basis point decline in interest rates on our earnings was estimated to be a charge of $100 million. See "Risk Management and Risk Factors" below.

### Impact of Foreign Exchange Rates

We have operations in many markets worldwide, including Canada, the United States and various countries in Asia, and generate revenues and incur expenses in local currencies in these jurisdictions, which are translated to Canadian dollars. The bulk of our exposure to movements in foreign exchange rates is to the U.S. dollar.

Items impacting our Consolidated Statements of Income are translated to Canadian dollars using average exchange rates for the respective period. For items impacting our Consolidated Statements of Financial Position, period end rates are used for currency translation purpose. The following table provides the most relevant foreign exchange rates for 2014 and 2013.

| | Quarterly | | | | | Full Year | |
|---|---|---|---|---|---|---|---|
| **Exchange rate** | **4Q14** | 3Q14 | 2Q14 | 1Q14 | 4Q13 | **2014** | 2013 |
| Average[(1)] | | | | | | | |
| U.S. dollar | **1.1356** | 1.0890 | 1.0905 | 1.1031 | 1.0494 | **1.1046** | 1.0298 |
| Japanese yen | **0.0099** | 0.0105 | 0.0107 | 0.0107 | 0.0105 | **0.0105** | 0.0106 |
| Hong Kong dollar | **0.1464** | 0.1405 | 0.1407 | 0.1422 | 0.1353 | **0.1425** | 0.1328 |
| Period end | | | | | | | |
| U.S. dollar | **1.1601** | 1.1208 | 1.0676 | 1.1053 | 1.0636 | **1.1601** | 1.0636 |
| Japanese yen | **0.0097** | 0.0102 | 0.0105 | 0.0107 | 0.0101 | **0.0097** | 0.0101 |
| Hong Kong dollar | **0.1496** | 0.1443 | 0.1378 | 0.1425 | 0.1372 | **0.1496** | 0.1372 |

(1) Average rates for the quarter are from Bank of Canada which are applied against Consolidated Statements of Income items for each period. Average rate for the full year is a 4 point average of the quarterly average rates.

In general, our net income benefits from a weakening Canadian dollar and is adversely affected by a strengthening Canadian dollar as net income from the Company's foreign operations are translated to Canadian dollars. However, in a period of losses, the weakening

5 This item is a non-GAAP measure. See "Performance and Non-GAAP Measures" below.

of the Canadian dollar has the effect of increasing the losses. The relative impact of foreign exchange in any given period is driven by the movement of currency rates as well as the proportion of earnings generated in our foreign operations.

Changes in foreign exchange rates, primarily due to the strengthening of the U.S. dollar compared to the Canadian dollar, increased core earnings by $129 million in 2014 compared with 2013. The impact of foreign currency on items excluded from core earnings is not relevant given the nature of these items.

### Fourth Quarter Financial Highlights

| For the quarters ended December 31, (C$ millions, except per share amounts) | **2014** | 2013 | 2012 |
|---|---|---|---|
| Net income attributed to shareholders | **$ 640** | $ 1,297 | $ 1,077 |
| Core earnings[1,2] (see next page for reconciliation) | **$ 713** | $ 685 | $ 554 |
| Diluted earnings per common share (C$) | **$ 0.33** | $ 0.68 | $ 0.57 |
| Diluted core earnings per common share (C$)[2] | **$ 0.36** | $ 0.35 | $ 0.28 |
| Return on common shareholders' equity (annualized) | **8.1%** | 20.2% | 19.2% |
| Sales[2] | | | |
| Insurance products[3] | **$ 760** | $ 617 | $ 922 |
| Wealth products | **$ 13,762** | $ 12,241 | $ 10,439 |
| Premiums and deposits[2] | | | |
| Insurance products | **$ 6,649** | $ 6,169 | $ 6,629 |
| Wealth products | **$ 18,863** | $ 15,367 | $ 17,499 |

[1] Impact of currency movement on 4Q14 versus 4Q13 was $35 million.
[2] This item is a non-GAAP measure. See "Performance and Non-GAAP Measures" below.
[3] Insurance sales have been adjusted to exclude Taiwan for all periods due to the sale of our Taiwan insurance business at the end of 2013.

**Manulife's 4Q14 net income attributed to shareholders** was $640 million compared with $1,297 million in 4Q13. Net income attributed to shareholders is comprised of core earnings which amounted to $713 million in 4Q14 compared with $685 million in 4Q13, and items excluded from core earnings, which netted to a loss of $73 million in 4Q14 compared with a net gain of $612 million in 4Q13.

The $28 million increase in core earnings compared with 4Q13 was the result of higher fee income due to higher asset levels in our wealth management businesses, increases in new business volumes, lower expenses and the strengthening of the U.S. dollar, partially offset by policyholder experience losses in North America. On a divisional basis, Asia core earnings increased 19% compared with 4Q13, after adjusting for increased dynamic hedging costs (there is a corresponding decrease in macro hedging costs in the Corporate and Other segment), changes in currency rates and the sale of our Taiwan insurance business at the end of 2013. Canadian core earnings decreased 4% and U.S. core earnings decreased 15%, both divisions reported policyholder experience losses in 4Q14.

With respect to items excluded from 4Q14 core earnings, fair value losses related to impact of the sharp decline in oil prices on investments held in Canada and the U.S. were mostly offset by the favourable impact on the measurement of policy liabilities of changes in yield curves as investment-related experience losses were $353 million (of which gains of $50 million were included in core earnings and $403 million of losses were excluded from core earnings) and gains related to the direct impact of interest rates and equity markets were $377 million. Charges related to actuarial methods and assumptions and policy changes netted to $59 million and included a net gain of $65 million from the implementation of the Canadian Actuarial Standards Board's revisions to the Actuarial Standards of Practice related to economic reinvestment assumptions. A gain from changes to fixed income reinvestment assumptions (an allowance for the use of credit spread assets for all durations, a change from deterministic to stochastically generated scenarios for most North American businesses, and changes to risk free interest rate scenarios) was partly offset by a new margin for adverse deviation for alternative long-duration assets and public equities.

Items excluded from core earnings in 4Q13 included strong investment-related experience and the one-time gains related to the sale of our Taiwan insurance business and to changes to investment objectives of separate accounts that support our U.S. variable annuity products.

### Analysis of Net Income

The table below reconciles the 4Q14 net income attributed to shareholders of $640 million to core earnings of $713 million.

| (C$ millions, unaudited) | **4Q 2014** | 4Q 2013 |
|---|---|---|
| **Core earnings**[1] | | |
| Asia Division[2] | **$ 260** | $ 227 |
| Canadian Division[2] | **224** | 233 |
| U.S. Division[2] | **338** | 366 |
| Corporate and Other (excluding expected cost of macro hedges and core investment gains) | **(112)** | (138) |
| Expected cost of macro hedges[2,3] | **(47)** | (53) |
| Investment-related experience in core earnings[4] | **50** | 50 |
| **Core earnings** | **$ 713** | $ 685 |
| Investment-related experience in excess of amounts included in core earnings[4] | **(403)** | 215 |
| **Core earnings and investment-related experience in excess of amounts included in core earnings** | **$ 310** | $ 900 |
| Other items to reconcile core earnings to net income attributed to shareholders: | | |
| Gains (charges) on direct impact of equity markets and interest rates and variable annuity guarantee liabilities (see table below)[4,5] | **377** | (81) |
| Changes in actuarial methods and assumptions[6] | **(59)** | (133) |
| Disposition of Taiwan insurance business | **12** | 350 |
| Impact of in-force product changes and recapture of a reinsurance treaty[7] | **–** | 261 |
| **Net income attributed to shareholders** | **$ 640** | $ 1,297 |

[1] This is a non-GAAP measure. See "Performance and Non-GAAP Measures" below.
[2] The decrease in expected cost of macro hedges cost in 4Q14 compared with 4Q13 was partially offset by an increase in dynamic hedging costs included in Asia, Canada and U.S. divisional core earnings.
[3] The 4Q14 net loss from macro equity hedges was $107 million and consisted of a $47 million charge related to the estimated expected cost of the macro equity hedges relative to our long-term valuation assumptions and a charge of $60 million because actual markets outperformed our valuation assumptions (included in direct impact of equity markets and interest rates and variable annuity guarantee liabilities below).
[4] As outlined under "Critical Accounting and Actuarial Policies" below, net insurance contract liabilities under IFRS for Canadian insurers are determined using CALM. Under CALM, the measurement of policy liabilities includes estimates regarding future expected investment income on assets supporting the policies. Experience gains and losses are reported when current period activity differs from what was assumed in the policy liabilities at the beginning of the period. These gains and losses can relate to both the investment returns earned in the period, as well as to the change in our policy liabilities driven by the impact of current period investing activities on future expected investment income assumptions. The direct impact of equity markets and interest rates is separately reported. The inclusion of up to $200 million per annum of favourable investment experience will be increasing to $400 million per annum commencing 1Q15. See "Performance and Non-GAAP Measures" below for more information.
[5] The direct impact of equity markets and interest rates is relative to our policy liability valuation assumptions and includes changes to interest rate assumptions, including experience gains and losses on derivatives associated with our macro equity hedges. We also include gains and losses on derivative positions and the sale of AFS bonds in the Corporate and Other segment. See table below for components of this item. Until 3Q14 this also included a quarterly URR update.
[6] The 4Q14 charge of $59 million is primarily attributable to method and modeling refinements, partially offset by a gain of $65 million due to the implementation of the Canadian Actuarial Standards Board's revisions to the Canadian Actuarial Standards of Practice related to economic reinvestment assumptions.
[7] The 4Q13 gain of $261 million included $193 million related to policyholder approved changes to the investment objectives of separate accounts that support our Variable Annuity products in the U.S. and $68 million related to a recapture of a reinsurance treaty in Asia.

The gain (charge) related to the direct impact of equity markets and interest rates and variable annuity guarantee liabilities in the table above is attributable to:

| C$ millions, unaudited | **4Q 2014** | 4Q 2013 |
|---|---|---|
| Direct impact of equity markets and variable annuity guarantee liabilities[1] | **$ (142)** | $ 105 |
| Fixed income reinvestment rates assumed in the valuation of policy liabilities[2] | **533** | (105) |
| Sale of AFS bonds and derivative positions in the Corporate and Other segment | **(14)** | (55) |
| Charges due to lower fixed income URR assumptions used in the valuation of policy liabilities[3] | **–** | (26) |
| **Direct impact of equity markets and interest rates and variable annuity guarantee liabilities** | **$ 377** | $ (81) |

[1] In 4Q14, gross equity exposure losses of $881 million and gross equity hedging charges of $60 million from macro hedge experience were partially offset by gains of $799 million from dynamic hedging experience which resulted in a loss of $142 million.
[2] The gain in 4Q14 for fixed income reinvestment assumptions was driven by the favourable impact on the measurement of policy liabilities of changes in yield curves primarily in the U.S. and Canada.
[3] The periodic URR charges have ceased effective 4Q14 due to revisions to the Canadian Actuarial Standards of Practice related to economic reinvestment assumptions.

## Sales

**Insurance sales** were $760 million in 4Q14, an increase of 20% compared with 4Q13, with all divisions reporting strong growth. In Asia, we achieved record sales, with most territories growing at a double digit pace. In Canada, we had a strong fourth quarter in large case Group Benefits sales. In the U.S., we continued to build momentum in life insurance sales as product enhancements and targeted pricing changes implemented earlier in the year continued to make an impact.

**Wealth sales** were $13.8 billion in 4Q14, an increase of 6% compared with 4Q13. New bank loan volumes (which we include in wealth sales) declined due to competitive rate pressures in a slowing residential mortgage market. Excluding new bank loan volumes, 4Q14 wealth sales increased 9% compared with the prior year. In Asia, wealth sales continued to demonstrate outstanding momentum, growing 64% from 4Q13, benefiting from new product launches, marketing campaigns and improved market sentiment. In Canada, group retirement sales increased compared with 4Q13 with strong sales of defined contribution plans. In the U.S., wealth sales were in line with the prior year, reflecting continued strong mutual fund sales.

### Efficiency and Effectiveness Initiative

Our Efficiency and Effectiveness ("E&E") initiative, announced November 2012, is aimed at leveraging our global scale and capabilities to achieve operational excellence throughout the organization. In 2013, we achieved pre-tax run rate savings[6] of approximately $200 million. In 2014, we continued to make substantial progress and have now achieved pre-tax run rate savings in excess of $300 million related to operations, information services, procurement, workplace transformation, as well as organizational design. This has translated into approximately $200 million in net pre-tax savings, which enabled us to fund new initiatives to accelerate our long-term earnings growth. We remain on track to achieve $400 million in pre-tax E&E savings in 2016.[7]

Over the next four years, we also plan to invest a significant amount in projects in order to realize our strategic vision. The amount of that investment is subject to change as our strategy unfolds. In particular, we intend to ensure that projects are appropriately sequenced and prioritized given recent headwinds.

### Acquisition of Canadian-based operations of Standard Life plc

On September 3, 2014, MLI entered into an agreement with Standard Life Oversea Holdings Limited, a subsidiary of Standard Life plc, and Standard Life plc to acquire the shares of Standard Life Financial Inc. and of Standard Life Investments Inc., collectively the Canadian-based operations of Standard Life plc.

On January 30, 2015, the Company completed its purchase of the Canadian-based operations of Standard Life plc for cash consideration of $4.0 billion. Upon closing, the Company's outstanding subscription receipts were automatically exchanged on a one-for-one basis for 105,647,334 MFC common shares, with a stated value of approximately $2.2 billion. In addition, pursuant to the

[6] Pre-tax run rate savings represent cumulative annualized savings from the E&E initiative.
[7] See "Caution regarding forward-looking statements" above.

terms of the subscription receipts, a dividend equivalent payment of $0.155 per subscription receipt ($16.4 million in the aggregate) was also paid to holders of subscription receipts, which is an amount equal to the cash dividends declared on MFC common shares for which record dates have occurred during the period from September 15, 2014 to January 29, 2015.

The following table summarizes the unaudited assets and liabilities of the Canadian-based operations of Standard Life plc as at December 31, 2014.

| (C$ millions, unaudited) | As at December 31, 2014 |
|---|---|
| **Assets** | |
| Invested assets | **$ 18,670** |
| Other assets | **970** |
| Segregated funds' net assets | **31,251** |
| **Total assets** | **$ 50,891** |
| **Liabilities** | |
| Insurance and investment contract liabilities | **$ 16,271** |
| Other liabilities | **771** |
| Subordinated debentures | **403** |
| Segregated funds' net liabilities | **31,251** |
| **Total liabilities assumed** | **$ 48,696** |
| **Net assets** | **$ 2,195** |

The difference between the purchase price and the determination of the final fair value of tangible net assets acquired as of January 30, 2015 represents goodwill and intangible assets. Due to the recent closing of the acquisition, the fair value determination and the initial purchase price accounting for the business combination have not been completed, and certain disclosures have not been provided. The final allocation of the purchase price as at January 30, 2015 will be determined after completing a comprehensive evaluation of the fair value of assets (including intangibles) and liabilities acquired at that date.

This transaction significantly builds the Company's capability to serve customers in all of Canada, and elsewhere in the world, from Quebec. On a pro forma basis as of December 31, 2014 after giving effect to the transaction, the acquisition:

- adds $20.9 billion in assets under administration[8] in capital accumulation plans to our group retirement business in Canada, bringing our total group retirement assets under administration in capital accumulation plans in Canada to $46.1 billion;
- adds $6.5 billion in assets under management to our mutual funds business in Canada, bringing our total mutual fund assets under management[8] in Canada to $39.6 billion; and,
- adds $0.7 billion in premiums and deposits to our Canadian group benefits business, bringing our total Canadian group benefits premiums and deposits in Canada to $7.8 billion.

Transaction highlights[9]:

- Excluding transition and integration costs, after the first year we expect the transaction to be accretive by approximately $0.03 to earnings per common share ("EPS") per year over each of the next 3 years. It will also increase our earnings capacity beyond our 2016 core earnings objective of $4 billion.
- The transaction, and the financing, maintain our strong capital position and financial flexibility, and in no way inhibit our ability to pay dividends. In fact, it will enhance our ability to increase dividends in the future.
- We believe the transaction will improve core earnings, however the transition costs reported in core earnings will create a modest, temporary headwind on our core return on common shareholders' equity ("Core ROE") 2016 objective of 13%.
- Excluding transition and integration costs, the transaction is expected to be marginally accretive to EPS in the 1st year.
- The transaction increases earnings contributions from less capital intensive, fee-based businesses.
- Integration costs totaling $150 million post-tax are expected to be incurred in the first 3 years and we expect revenue synergies which will build over time.
- Annual cost savings of $100 million post-tax is expected to be largely achieved by the 3rd year.
- At the time of announcement, we indicated we were targeting an MCCSR ratio in the range of 235% to 240% at close. The pro forma ratio assuming we had closed on December 31, 2014 would have been in that range.
- We also indicated that we were targeting a financial leverage ratio of approximately 28% at close. The pro forma ratio assuming we had closed on December 31, 2014 would have been approximately 27.1%.
- We continue to target a 25% financial leverage ratio over the long-term.

[8] This item is a non-GAAP measure. See "Performance and Non-GAAP Measures" below.

[9] See "Caution regarding forward-looking statements" above and "Performance and Non-GAAP Measures" below.

# Performance by Division

# Asia Division

***Manulife has a demonstrated business expertise in Asia dating back more than 100 years. Since issuing our first Asian policy in Shanghai in 1897, we have pursued strong, sustained growth and remained a leading provider of financial protection and wealth management products. We are relentlessly focused on helping our customers prepare for their futures, and that focus drives our growth strategy and underpins our commitment to the region. We are diversified across Asia, including some of the world's largest and fastest-growing economies, with operations in Hong Kong, Japan, Indonesia, the Philippines, Singapore, China, Taiwan, Vietnam, Malaysia, Thailand, Macau and Cambodia.***

***We offer a broad portfolio of products and services including life and health insurance, annuities, mutual funds and retirement solutions that cater to the needs of individuals and corporate customers through a multi-channel network, supported by a team of approximately 9,000 employees. We now have more than 57,800 contracted agents selling our products and have expanded our distribution capabilities to include more than 100 bank partnerships and more than 500 dealers, independent agents and brokers.***

In 2014, Asia Division contributed 18% of the Company's total premiums and deposits and, as at December 31, 2014, accounted for 13% of the Company's assets under management.

### Financial Performance

Asia Division reported net income attributed to shareholders of $1,247 million in 2014 compared with $2,519 million in 2013. Net income attributed to shareholders is made up of core earnings (consisting of items we believe reflect the underlying earnings capacity of the business), which amounted to $1,008 million in 2014 compared with $921 million in 2013, and items excluded from core earnings, which amounted to $239 million for 2014 compared with $1,598 million in 2013.

Expressed in U.S. dollars, the presentation currency of the division, net income attributed to shareholders was US$1,129 million in 2014 compared with US$2,451 million in 2013, core earnings was US$913 million in 2014 compared with US$893 million in 2013 and items excluded from core earnings were US$216 million in 2014 compared with US$1,558 million in 2013. The increase in core earnings was US$138 million after adjusting for the increased dynamic hedging costs (there is a corresponding decrease in macro hedging costs in the Corporate and Other segment), the impact of changes in currency rates and sale of our Taiwan insurance business at the end of 2013. This 16% increase was driven by higher new business volumes and margins, growth in our in-force business and favourable policyholder experience. The US$1,342 million decrease in items excluded from core earnings was due to the non-recurrence of large gains reported in 2013 related to the direct impact of equity markets and interest rates and variable annuity guarantee liabilities, the sale of our Taiwan insurance business and the recapture of a reinsurance treaty.

| For the years ended December 31, ($ millions) | Canadian $ | | | US $ | | |
|---|---|---|---|---|---|---|
| | **2014** | 2013 | 2012 | **2014** | 2013 | 2012 |
| **Core earnings**[1] | **$ 1,008** | $ 921 | $ 963 | **$ 913** | $ 893 | $ 963 |
| Items to reconcile core earnings to net income attributed to shareholders: | | | | | | |
| Direct impact of equity markets and interest rates and variable annuity guarantee liabilities[2] | **173** | 1,164 | 911 | **157** | 1,142 | 920 |
| Investment-related experience related to fixed income trading, market value increases in excess of expected alternative assets investment returns, asset mix changes and credit experience | **62** | 16 | 55 | **56** | 18 | 56 |
| Favourable impact of enacted tax rate changes | **4** | – | 40 | **3** | – | 40 |
| Disposition of Taiwan insurance business | **–** | 350 | – | **–** | 334 | – |
| Impact of recapture of a reinsurance treaty | **–** | 68 | – | **–** | 64 | – |
| **Net income (loss) attributed to shareholders** | **$ 1,247** | $ 2,519 | $ 1,969 | **$ 1,129** | $ 2,451 | $ 1,979 |

[1] Core earnings is a non-GAAP measure. See "Performance and Non-GAAP Measure" below.

[2] The direct impact of equity markets and interest rates is relative to our policy liability valuation assumptions and includes changes to interest rate assumptions. The net gain of $173 million in 2014 (2013 – net gain of $1,164 million) consisted of a $47 million gain (2013 – $1,057 million gain) related to variable annuities that are not dynamically hedged, a $1 million gain (2013 – $60 million gain) on general fund equity investments supporting policy liabilities and on fee income and a $125 million gain (2013 – $75 million gain) related to fixed income reinvestment rates assumed in the valuation of policy liabilities and nil (2013 – $28 million loss) related to variable annuity guarantee liabilities that are dynamically hedged. The amount of variable annuity guaranteed value that was dynamically hedged at the end of 2014 was 51% (2013 – 49%). Our variable annuity guarantee dynamic hedging strategy is not designed to completely offset the sensitivity of policy liabilities to all risks associated with the guarantees embedded in these products.

## Sales

**Asia Division's 2014 insurance sales** were a record US$1,278 million, an increase of 31%[10] compared with 2013, driven by double digit sales growth in most of the territories in which we operate. Sales in Japan of US$589 million were 60% higher than the prior year driven by strong sales of corporate products and channel expansion. Hong Kong sales of US$293 million increased 15% from 2013, reflecting new product launches and successful sales campaigns. In Indonesia, sales of US$114 million grew 8% over the prior year as strong growth in bancassurance business was partially offset by lower agency sales. Asia Other sales (excluding Japan, Hong Kong and Indonesia) of US$282 million were 17% higher than in 2013 driven by successful product launches and improved agent productivity in China, the Philippines and Vietnam.

**Asia Division's 2014 wealth sales** were a record US$8.0 billion, an increase of 2% compared with 2013. Japan sales of US$1.5 billion were 11% lower than the prior year due to lower mutual fund sales, reflecting a shift in investor product preferences in the second half of 2013; partly offset by higher sales from new product launches and expanded bank distribution. Hong Kong sales of US$1.2 billion increased 6% from 2013, driven by continued momentum in pension sales and successful sales campaigns. In Indonesia, sales of US$851 million grew 4% over the prior year as higher mutual fund sales, reflecting improved market sentiment since 2Q14, were partly offset by lower single premium unit-linked sales. Asia Other sales of US$4.4 billion were 5% higher than 2013 driven by higher mutual fund sales in Taiwan and Thailand and the contribution from the asset management company acquired at end of 2013 in Malaysia.

### Sales

| For the years ended December 31, ($ millions) | Canadian $ | | | US $ | | |
|---|---|---|---|---|---|---|
| | **2014** | 2013 | 2012 | **2014** | 2013 | 2012 |
| Insurance products[(1)] | **$ 1,412** | $ 1,052 | $ 1,370 | **$ 1,278** | $ 1,020 | $ 1,370 |
| Wealth products | **8,900** | 8,536 | 5,690 | **8,045** | 8,319 | 5,698 |

[(1)] All periods have been restated to exclude insurance product sales from Taiwan due to the sale of our Taiwan insurance business at the end of 2013.

## Revenue

Total revenue in 2014 of US$10.8 billion increased US$2.2 billion compared with 2013, primarily driven by the impact of fair value accounting (see "Financial Performance – Impact of Fair Value Accounting" above). Revenue before net realized and unrealized investment gains and losses decreased by US$0.3 billion primarily due to lower revenue from the non-recurrence of the one-time gain on the sale of our Taiwan insurance business in 2013 of US$454 million, partially offset by the increase in premium and fee income.

### Revenue

| For the years ended December 31, ($ millions) | Canadian $ | | | US $ | | |
|---|---|---|---|---|---|---|
| | **2014** | 2013 | 2012 | **2014** | 2013 | 2012 |
| Net premium income | **$ 7,275** | $ 6,330 | $ 7,045 | **$ 6,583** | $ 6,148 | $ 7,050 |
| Investment income | **1,271** | 1,224 | 1,104 | **1,150** | 1,187 | 1,101 |
| Other revenue | **1,334** | 1,963 | 716 | **1,208** | 1,898 | 715 |
| Revenue before net realized and unrealized investment gains (losses)[(1)] | **$ 9,880** | $ 9,517 | $ 8,865 | **$ 8,941** | $ 9,233 | $ 8,866 |
| Net realized and unrealized investment gains (losses) | **2,078** | (619) | 1,090 | **1,867** | (593) | 1,091 |
| **Total revenue** | **$ 11,958** | $ 8,898 | $ 9,955 | **$ 10,808** | $ 8,640 | $ 9,957 |

[(1)] See "Financial Performance – Impact of Fair Value Accounting" above.

## Premium and Deposits

Premiums and deposits for the full year 2014 of US$16.2 billion increased 5% on a constant currency basis compared with 2013. Of this, premiums and deposits for insurance products of US$6.4 billion increased 13% compared with 2013 (adjusted to exclude the Taiwan insurance business sold in 2013). Premiums and deposits for wealth products of US$9.8 billion increased by 3% compared with 2013. The increase was driven by sales from new single premium whole life products (classified as wealth sales due to their high investment component) and the favourable impact of expanded distribution in Japan, continued momentum in pension sales in Hong Kong and improved market sentiment in Indonesia, partially offset by lower single premium unit-linked sales in Indonesia and the non-recurrence of strong sales of the Strategic Income Fund in the first half of 2013 due to a shift in investor preference from bonds to equities.

### Premiums and Deposits

| For the years ended December 31, ($ millions) | Canadian $ | | | US $ | | |
|---|---|---|---|---|---|---|
| | **2014** | 2013 | 2012 | **2014** | 2013 | 2012 |
| Insurance products | **$ 7,066** | $ 6,337 | $ 6,650 | **$ 6,396** | $ 6,154 | $ 6,655 |
| Wealth products | **10,831** | 10,167 | 6,811 | **9,789** | 9,908 | 6,822 |
| **Total premiums and deposits** | **$ 17,897** | $ 16,504 | $ 13,461 | **$ 16,185** | $ 16,062 | $ 13,477 |

[10] Growth (declines) in sales, premiums and deposits and assets under management are stated on a constant currency basis. Constant currency basis is a non-GAAP measure. See "Performance and Non-GAAP Measures" below.

## Assets under Management

Asia Division assets under management as at December 31, 2014 were US$75.1 billion, an increase of 10% on a constant currency basis compared with December 31, 2013, driven by net policyholder cash inflows of US$2.0 billion, combined with the impact of the decline in interest rates and higher equity markets, partially offset by a weaker yen compared with the U.S. dollar.

### Assets under Management

| As at December 31, ($ millions) | Canadian $ | | | US $ | | |
|---|---|---|---|---|---|---|
| | **2014** | 2013 | 2012 | **2014** | 2013 | 2012 |
| General fund | **$ 41,991** | $ 34,756 | $ 36,608 | **$ 36,198** | $ 32,680 | $ 36,800 |
| Segregated funds | **22,925** | 23,568 | 24,647 | **19,761** | 22,160 | 24,780 |
| Mutual and other funds | **22,167** | 18,254 | 16,480 | **19,108** | 17,164 | 16,563 |
| **Total assets under management** | **$ 87,083** | $ 76,578 | $ 77,735 | **$ 75,067** | $ 72,004 | $ 78,143 |

## Strategic Direction

Manulife Asia's strategic ambition is to become a premier pan-Asian insurance and wealth management franchise that is well positioned to meet the evolving protection, savings and retirement needs of its customers. Our core strategy of providing customers with personalized financial solutions that enable them to confidently secure their own and their family's financial future focuses on expanding our professional agency force and alternative distribution channel, building and expanding our portfolio of products in wealth and protection, building long-lasting customer relationships as well as investing in our brand across Asia. Our agency and bank distribution strategies will help us to reach the rapidly expanding middle class across Asia and by leveraging our insurance and asset management businesses, we will offer holistic retirement solutions from insurance, pensions and mutual funds to support the needs of the aging population. We will also accelerate the development of mobile and digital platforms and interactions to enhance our customers' experience.

In 2014, we entered into several new strategic bancassurance agreements, including with RHB Bank in Singapore and Industrial and Commercial Bank of China in Macau. We also strengthened our strategic bancassurance alliance in the Philippines by renewing our 10-year distribution agreement with China Banking Corporation, which also increased its stake in our joint venture company, Manulife China Bank Life Assurance Corporation, to 40%. To support our customer centricity objectives, we improved our public websites to enhance customer experience and launched an electronic point of sale solution in a number of markets to improve the structure and efficiency of the financial advice and sales process.

In Hong Kong, in 2014, we were first-in-market with a multiple critical illness plan which provides customers with increased protection and we continued to build our retirement business with the launch of two new retirement products. In addition, through advancements in technology we enhanced customer experience, strengthened agency training and development, and promoted our brand in the retirement field.

In Japan, in 2014, we expanded corporate, retail and bancassurance distribution and enhanced customer experience by streamlining sales and back-office processes, and point-of-sales tools for new products.

In Indonesia, in 2014, we further developed our sharia business by signing a memorandum of understanding to form a new strategic bancassurance partnership with a local sharia bank and launched a series of new products and riders to cater to the growing protection and investment needs of the middle class. To further promote our brand awareness in the market, we launched a series of branding campaigns throughout the year including one that coincided with the important national festival, Eid al-Fitr, in July.

In the Other Asia territories, in 2014, we continued investing to expand and diversify our distribution channels and develop our wealth and asset management businesses. We also focused on improving product competitiveness, for example in Singapore where we improved insurance sales in the second half of the year by 162% compared with the first half of the year.

# Canadian Division

***Serving one in five Canadians, our Canadian Division is one of the leading financial services organizations in Canada. We offer a broad portfolio of protection, estate planning, investment and banking solutions through a diversified independent distribution network, supported by a team of more than [8,600] employees.***

***Our Individual Insurance business offers a broad portfolio of insurance products, including universal, whole and term life, as well as living benefits insurance, designed to meet the protection, estate and retirement planning needs of middle- and upper-income customers. Manulife Investments offers a range of investment products and services that span the investor spectrum, from those just starting to build their financial portfolio to individuals and families with complex retirement and estate planning needs, while Manulife Private Wealth provides personalized investment management, private banking and estate solutions to affluent clients. Manulife Bank offers flexible debt and cash flow management solutions as part of their financial plan. We also provide group life, health, disability and retirement solutions to Canadian employers; more than 20,000 Canadian businesses and organizations entrust their employee benefit programs to Manulife's Group Benefits. Life, health and specialty products, such as travel insurance, are also offered through alternative distribution channels, including sponsor groups and associations, as well as direct-to-customer marketing.***

In 2014, Canadian Division contributed 22% of the Company's total premiums and deposits and, as at December 31, 2014, accounted for 23% of the Company's assets under management.

## Financial Performance

Canadian Division's net income attributed to shareholders was $1,003 million in 2014 compared with $828 million in 2013. Net income attributed to shareholders is comprised of core earnings (consisting of items we believe reflect the underlying earnings capacity of the business), which amounted to $927 million for 2014 compared with $905 million for 2013, and items excluded from core earnings, which amounted to a gain of $76 million for 2014 compared with a loss of $77 million in 2013.

The $22 million increase in core earnings over the prior year reflected in-force business growth, including higher fee income from our growing wealth management businesses, and improved policyholder experience partially offset by higher strain on insurance sales. In addition, 2013 core earnings benefited from a release of tax provisions related to the closure of prior years' tax filings. The increase in items excluded from core earnings was driven by more favourable market and investment-related experience in 2014.

The table below reconciles net income attributed to shareholders to core earnings for Canadian Division for 2014, 2013 and 2012.

| **For the years ended December 31,**<br>**(C$ millions)** | **2014** | 2013 | 2012 |
|---|---|---|---|
| **Core earnings**[1] | **$ 927** | $ 905 | $ 835 |
| Items to reconcile core earnings to net income attributed to shareholders: | | | |
| Investment gains (losses) related to fixed income trading, market value increases in excess of expected alternative assets investment returns, asset mix changes and credit experience | **1** | (34) | (10) |
| Direct impact of equity markets and interest rates and variable annuity guarantee liabilities[2] | **51** | (40) | 85 |
| Impact of a recapture of a reinsurance treaty and in-force product changes[3] | **24** | – | 259 |
| Impact of change in marginal tax rate | **–** | (3) | – |
| **Net income attributed to shareholders** | **$ 1,003** | $ 828 | $ 1,169 |

(1) Core earnings is a non-GAAP measure. See "Performance and Non-GAAP Measures" below.

(2) The direct impact of equity markets and interest rates is relative to our policy liability valuation assumptions and includes changes to interest rate assumptions. The gain of $51 million in 2014 (2013 – $40 million charge) consisted of a $20 million gain (2013 – $28 million gain) on general fund equity investments supporting policy liabilities, a $30 million gain (2013 – $187 million charge) related to fixed income reinvestment rates assumed in the valuation of policy liabilities, nil (2013 – $12 million gain) related to unhedged variable annuities and a $1 million gain (2013 – $107 million gain) related to variable annuity guarantee liabilities that are dynamically hedged. The amount of variable annuity guaranteed value that was dynamically hedged at the end of 2014 was 90% (2013 – 92%). Our variable annuity guarantee dynamic hedging strategy is not designed to completely offset the sensitivity of policy liabilities to all risks associated with the guarantees embedded in these products.

(3) The $24 million gain in 2014 relates to the recapture of a reinsurance treaty. The $259 million gain in 2012 included $137 million related to the recapture of a reinsurance treaty and $122 million related to in-force segregated funds product changes.

## Sales

Insurance sales for 2014 were $578 million, 49% lower than 2013 levels, reflecting the impact of competitive pressures and a disciplined approach to pricing in Group Benefits. Excluding Group Benefits, 2014 insurance sales were 3% higher than in 2013. Retail Markets' insurance sales of $167 million increased 4% from 2013 as our simplified universal life product, Manulife UL, gained traction.

Sales of wealth products in 2014 were $11.5 billion, a decrease of $635 million or 5% from 2013 levels due to lower new bank loan volumes (which we include in wealth sales) as a result of competitive pressures in a slowing residential mortgage market. Excluding new bank loan volumes, wealth sales increased 3% compared with 2013. Growth in fee-based businesses included our second highest annual sales on record in group retirement, modest growth in segregated fund products and continued momentum in mutual funds, partially offset by lower fixed product sales reflecting our deliberate rate positioning in this market.

### Sales

| For the years ended December 31,<br>(C$ millions) | 2014 | 2013 | 2012 |
|---|---|---|---|
| Retail Markets | $ 167 | $ 161 | $ 169 |
| Institutional Markets | 411 | 964 | 1,141 |
| **Insurance products** | **$ 578** | $ 1,125 | $ 1,310 |
| New bank loan volumes | $ 3,236 | $ 4,146 | $ 4,576 |
| Other wealth products | 8,262 | 7,987 | 5,481 |
| **Wealth products** | **$ 11,498** | $ 12,133 | $ 10,057 |

## Revenue

Revenue of $13.8 billion in 2014 increased $7.7 billion from $6.1 billion in 2013 due to the impact of fair value accounting. Total revenue before net realized and unrealized gains and losses was $9.6 billion in 2014, in line with 2013 levels. Other income was stable year-over-year as increased fee income from growth in our wealth management businesses was offset by normal volatility related to reinsurance in Group Benefits.

### Revenue

| As at December 31,<br>(C$ millions) | 2014 | 2013 | 2012 |
|---|---|---|---|
| Net premium income | $ 3,728 | $ 3,774 | $ 3,599 |
| Investment income | 3,298 | 3,346 | 3,073 |
| Other revenue | 2,611 | 2,644 | 2,778 |
| Total revenue before net realized and unrealized gains (losses) | $ 9,637 | $ 9,764 | $ 9,450 |
| Net realized and unrealized gains (losses)[1] | 4,136 | (3,704) | 779 |
| **Total revenue** | **$ 13,773** | $ 6,060 | $ 10,229 |

[1] See "Financial Performance – Impact of Fair Value Accounting" above.

## Premiums and Deposits

Premiums and deposits of $21.6 billion in 2014 were 2% higher than the $21.2 billion reported in 2013 reflecting growth in our group retirement business from sales and deposits from a growing in-force block of plan participants. Insurance products' premiums and deposits in 2014 were slightly lower than 2013 due to volatility in single premiums. Excluding single premiums, premiums and deposits in insurance products were 3% higher than 2013.

### Premiums and Deposits

| For the years ended December 31,<br>(C$ millions) | 2014 | 2013 | 2012 |
|---|---|---|---|
| Insurance products | $ 10,508 | $ 10,552 | $ 10,310 |
| Wealth products | 11,111 | 10,620 | 7,809 |
| **Total premiums and deposits** | **$ 21,619** | $ 21,172 | $ 18,119 |

## Assets under Management

Assets under management of $158.9 billion as at December 31, 2014 grew by $13.7 billion or 9% from $145.2 billion at December 31, 2013 driven by growth in our wealth management businesses and the impact of equity market appreciation and lower interest rates.

### Assets under Management

| As at December 31,<br>(C$ millions) | 2014 | 2013 | 2012 |
|---|---|---|---|
| General fund | $ 85,070 | $ 80,611 | $ 79,961 |
| Segregated funds | 57,028 | 51,681 | 44,701 |
| Mutual and other funds | 33,411 | 27,560 | 20,675 |
| Less mutual funds held by segregated funds | (16,605) | (14,641) | (12,138) |
| **Total assets under management** | **$ 158,904** | $ 145,211 | $ 133,199 |

## Strategic Direction

Our aspiration is to be the trusted partner for financial solutions in Canada, building long-lasting, meaningful relationships with our customers throughout their lifetimes. To meet our customers' needs in the manner suited to them, we will continue to develop new

capabilities, supported by significant investments in technology, while continuing to leverage our historical strengths of product innovation, distribution excellence and service quality. Through disciplined, risk-appropriate growth, we will continue to deliver high quality sustainable earnings and shareholder value.

Our large customer base, strong distribution partnerships and leading market presence provide a solid foundation for continued growth. Our recently completed acquisition of the Canadian-based operations of Standard Life plc will significantly contribute to our growth strategy, particularly in wealth and asset management. Transformative to our group retirement business, the transaction almost doubles assets under administration to over $46 billion[11] and adds over $6 billion[12] to our mutual fund assets under management. It will enhance our presence in Quebec and significantly builds our capability to serve customers in all of Canada, and the world, from Quebec.

With over 76,000 licensed advisors and 660 Manulife sales professionals, we serve one in five Canadians. In 2014, we expanded our distribution reach through increased broker-dealer penetration, adding new advisors and extending existing relationships. We will continue to expand our distribution relationships and to invest in support for our advisors to help their businesses thrive, including our wholesaler teams that assist advisors with creative product and sales solutions for our customers, as well as our leading professional tax and estate planning teams. In 2014, we established our Consumer Solutions team to bring a dedicated focus to developing alternative marketing and product solutions for our advisor partners, as well as existing and prospective new customers.

Our broad solutions portfolio is a key competitive strength. Further expansion and integration of our portfolio, combined with expanded distribution capabilities and enhanced service delivery, will help us to continue to meet the needs of a wide spectrum of customers, ranging from those just starting out to established individuals and families with more complex retirement and estate planning needs. In 2014, in collaboration with Manulife Asset Management ("MAM"), we continued to build our presence in equity mandates and diversify our investment funds platform delivering record mutual fund assets under management. We also continued to improve our competitive positioning and expand our market reach with the introduction of Manulife UL, a universal life solution combining simplified investment options with long-term insurance protection.

In the group benefits and retirement markets, we will continue to leverage our strong market position, further enhanced by the acquisition of the Canadian-based operations of Standard Life plc, to support employers across all market segments in providing cost effective options to their employees. In 2014, we launched our Mental Health Specialist Team, the first of its kind in Canada, to enhance support to our group disability insurance clients and their employees. We also continued to increase our profile with small business employers by launching a small business website, and by expanding our suite of investment funds for smaller pension plans, enhancing investment options in an underserved segment of the market.

Service quality is critical to building relationships with existing customers and to attracting new customers. We closely monitor customer and advisor feedback to proactively improve the service experience. We will continue to focus on enhancing our customers' experience, putting their needs at the centre of everything we do as we invest in process improvement initiatives and increased automation. In 2014, we continued to improve our on-line customer-facing technology enhancing e-submission capabilities and introducing new mobile applications.

[11] Assets in capital accumulation plans only on a proforma basis after giving effect to the transaction as at December 31, 2014.
[12] Source: Investment Funds Institute of Canada, data as of December 31, 2014.

# U.S. Division

***Operating under the John Hancock brand in the U.S., we focus on providing financial solutions at every stage of our clients' lives. Our product suite includes life insurance, mutual funds, 401(k) plans, long-term care ("LTC") insurance, and annuities. We distribute our products primarily through affiliated and non-affiliated licensed financial advisors. Our U.S. Division has a team of approximately 5,800 employees. John Hancock is a household name in the U.S. with 89% overall brand recognition[13].***

***John Hancock Insurance offers a broad portfolio of insurance products, including universal, variable, whole, and term life insurance designed to provide estate, business, income protection and retirement solutions for high net worth and emerging affluent markets. We also provide LTC Insurance which is designed to cover the cost of long-term services and support, including personal and custodial care in a variety of settings such as the home, a community organization, or other facility in the event of an illness, accident, or through the normal effects of aging.***

***U.S. Wealth Management offers a broad range of products and services focused on individuals and business markets, as well as institutional oriented products for employee benefit plan funding solutions. John Hancock Retirement Plan Services ("JH RPS") provides 401(k) plans to small and medium-sized businesses. John Hancock Investments ("JH Investments") offers a variety of mutual funds and 529 College Savings plans. We also manage an in-force block of fixed deferred, variable deferred and payout annuity products.***

***Signator Investors, Inc. is our affiliated broker/dealer and is comprised of a national network of independent firms with over 1,500 registered representatives.***

In 2014, U.S. Division contributed 51% of the Company's total premiums and deposits and, as at December 31, 2014, accounted for 57% of the Company's assets under management.

### Financial Performance

U.S. Division reported net income attributed to shareholders of $2,147 million in 2014 compared with $2,908 million in 2013. Net income attributed to shareholders is comprised of core earnings (consisting of items we believe reflect the underlying earnings capacity of the business), which amounted to $1,383 million in 2014 compared with $1,510 million in 2013, and items excluded from core earnings, which were $764 million in 2014 compared with $1,398 million in 2013.

Expressed in U.S. dollars, the functional currency of the division, 2014 net income attributed to shareholders was US$1,946 million compared with US$2,820 million in 2013, core earnings were US$1,252 million compared with US$1,469 million in 2013, and items excluded from core earnings were US$694 million compared with US$1,351 million in 2013. The US$217 million decrease in core earnings was driven by unfavourable policyholder experience in JH Insurance including higher long-term care claims, compared with favourable experience in 2013; increased dynamic hedging costs (there is a corresponding decrease in macro hedging costs in the Corporate and Other segment); the unfavourable impact of market factors on insurance and annuity expected earnings; and lower favourable tax related items. The decrease in core earnings was partially offset by higher wealth management fee income due to higher asset levels and lower deferred acquisition amortization costs due to the run-off of our Variable Annuity business.

The US$657 million decrease in items excluded from core earnings compared with the prior year related to the non-recurrence of a gain in 2013 related to policyholder-approved changes to the investment objectives of separate accounts that support our Variable Annuity products as well as lower investment-related experience gains. The direct impact of interest rates and equity markets was not materially different in total; however, the gains in 2013 were due to equity markets and in 2014 were due to interest rates.

[13] The *2013 GfK Brand Tracking Study*.

The table below reconciles net income attributed to shareholders to core earnings for U.S. Division for 2014, 2013 and 2012.

| For the years ended December 31, ($ millions) | Canadian $ | | | US $ | | |
|---|---|---|---|---|---|---|
| | **2014** | 2013 | 2012 | **2014** | 2013 | 2012 |
| **Core earnings**(1) | **$ 1,383** | $ 1,510 | $ 1,085 | **$ 1,252** | $ 1,469 | $ 1,088 |
| Items to reconcile core earnings to net income attributed to shareholders: | | | | | | |
| Investment-related experience related to fixed income trading, market value increases in excess of expected alternative assets investment returns, asset mix changes and credit experience | **482** | 893 | 1,026 | **447** | 868 | 1,029 |
| Direct impact of equity markets and interest rates and on variable annuity guarantee liabilities(2) | **282** | 312 | (363) | **247** | 299 | (364) |
| Impact of release of tax reserves, in-force product changes and recapture of reinsurance treaties(3) | **–** | 193 | 171 | **–** | 184 | 173 |
| **Net income attributed to shareholders** | **$ 2,147** | $ 2,908 | $ 1,919 | **$ 1,946** | $ 2,820 | $ 1,926 |

(1) Core earnings is a non-GAAP measure. See "Performance and Non-GAAP Measure" below.

(2) The direct impact of equity markets and interest rates is relative to our policy liability valuation assumptions and includes changes to interest rate assumptions. Our variable annuity guarantee dynamic hedging strategy is not designed to completely offset the sensitivity of policy liabilities to all risks associated with the guarantees embedded in these products. The US$247 million gain in 2014 (2013 – US$299 million gain) consisted of a US$106 million loss (2013 – US$302 million gain) related to variable annuities that are dynamically hedged, a US$14 million gain (2013 – US$121 million gain) on general fund equity investments supporting policy liabilities, a US$8 million loss (2013 – US$197 million gain) related to variable annuities that are not dynamically hedged, and a US$347 million gain (2013 – US$321 million loss) related to fixed income reinvestment rates assumed in the valuation of policy liabilities. The amount of variable annuity guaranteed value that was dynamically hedged or reinsured at the end of 2014 was 94% (2013 – 94%).

(3) The 2013 US$184 million gain was related to policyholder-approved changes to the investment objectives of separate accounts that support our Variable Annuity products. The 2012 US$173 million net gain for the impact of release of tax reserves and recapture of reinsurance treaties included US$172 million due to a material updated assessment of prior years' uncertain tax positions and net gains of US$10 million on the Life recapture of a reinsurance treaty offset by net losses of US$9 million on the fixed deferred annuity reinsurance transactions.

## Sales

In 2014, we achieved record sales in our U.S. mutual fund business and continued to achieve success in the repositioning of our U.S. insurance products. Sales in our 401(k) business declined due to lower market activity and competitive pressures.

U.S. Division sales of insurance products were US$501 million in 2014, a decrease of US$62 million or 11% compared with 2013. Sales were hampered by slow industry sales, particularly in the estate planning products market. We continue to experience improvements in business mix and profitability as a result of the pricing and product actions taken in 2013 and early 2014. Building on strong momentum from these actions, John Hancock Insurance sales increased sequentially in each quarter of 2014.

U.S. Division sales of wealth management products were US$29.2 billion in 2014, an increase of US$1.0 billion or 3% compared with 2013. Record mutual fund sales driven by continued improvement in sales force productivity, a strong product line-up and product performance, and a focus on key distribution partners were partially offset by lower 401(k) sales. Our strong product line-up, including 38 Four- or Five-Star Morningstar[14] rated mutual funds, also helped drive strong retention and net flows contributing to record assets under management in JH Investments.

### Sales

| For the years ended December 31, ($ millions) | Canadian $ | | | US $ | | |
|---|---|---|---|---|---|---|
| | **2014** | 2013 | 2012 | **2014** | 2013 | 2012 |
| Insurance products | **$ 554** | $ 580 | $ 599 | **$ 501** | $ 563 | $ 599 |
| Wealth management products | **32,206** | 29,012 | 20,193 | **29,156** | 28,174 | 20,213 |

## Revenue

Total revenue in 2014 of US$26.1 billion increased US$20.5 billion compared with 2013 primarily driven by fair value accounting. Revenue before net realized and unrealized investment gains (losses) was US$15.9 billion, a decrease of US$0.5 billion. Net premium income was US$6.2 billion, a decrease of $1.0 billion primarily due to lower Universal Life premiums consistent with the sluggish estate planning market and lower deposits on in-force annuity business. Other Revenue of US$4.1 billion consists of asset fee income, cost of insurance fees and annuity mortality and expense fees and surrender charges. The increase in other revenue of US$0.2 billion compared with 2013 is due to other fee income in the Asset Management business driven by higher average asset values, partially offset by lower fee income and mortality and expense fees as the in-force variable annuity business continues to run off.

[14] For each fund with at least a three year history, Morningstar calculates a Morningstar Rating based on a Morningstar Risk-Adjusted Return that accounts for variation in a fund's monthly performance (including effects of sales charges, loads and redemption fees), placing more emphasis on downward variations and rewarding consistent performance. The top 10% of funds in each category, the next 22.5%, 35%, 22.5% and bottom 10% receive 5, 4, 3, 2 or 1 star, respectively. The Overall Morningstar Rating for a fund is derived from a weighted average of the performance associated with its three, five and 10 year (if applicable) Morningstar Rating metrics. Past performance is no guarantee of future results. The overall rating includes the effects of sales charges, loads and redemption fees, while the load-waived does not. Load-waived rating for Class A shares should only be considered by investors who are not subject to a front-end sales charge.

## Revenue

| For the years ended December 31, ($ millions) | Canadian $ 2014 | Canadian $ 2013 | Canadian $ 2012 | US $ 2014 | US $ 2013 | US $ 2012 |
|---|---|---|---|---|---|---|
| Net premium income[1] | **$ 6,803** | $ 7,324 | $ (547) | **$ 6,155** | $ 7,112 | $ (495) |
| Investment income | **6,262** | 5,567 | 5,489 | **5,668** | 5,402 | 5,496 |
| Other revenue | **4,531** | 4,034 | 3,626 | **4,102** | 3,915 | 3,627 |
| Revenue before net realized and unrealized investment gains (losses) | **$ 17,596** | $ 16,925 | $ 8,568 | **$ 15,925** | $ 16,429 | $ 8,628 |
| Net realized and unrealized gains (losses)[2] | **11,271** | (11,187) | 1,123 | **10,154** | (10,896) | 1,055 |
| **Total revenue** | **$ 28,867** | $ 5,738 | $ 9,691 | **$ 26,079** | $ 5,533 | $ 9,683 |

(1) Net premium income is net of ceded premiums. In 2012 ceded premiums included $7,229 (US$7,181) related to fixed deferred annuity coinsurance transactions whereby the Company entered into coinsurance agreements to reinsure approximately 90% of its U.S. book value fixed deferred annuity business.

(2) See "Financial Performance – Impact of Fair Value Accounting" above.

## Premiums and Deposits

U.S. Division total premiums and deposits for 2014 were US$45.5 billion, an increase of US$0.3 billion or 1% compared with 2013. Of this, premiums and deposits for insurance products were US$6.7 billion, a decrease of US$0.7 billion compared with 2013. The decrease was due to lower first year and single universal life premiums consistent with the sluggish estate planning market. Premiums and deposits for wealth management products were US$38.8 billion, an increase of US$1.0 billion compared with 2013, reflecting a US$1.6 billion increase in mutual fund sales partially offset by lower deposits on in-force annuity business.

### Premiums and Deposits

| For the years ended December 31, ($ millions) | Canadian $ 2014 | Canadian $ 2013 | Canadian $ 2012 | US $ 2014 | US $ 2013 | US $ 2012 |
|---|---|---|---|---|---|---|
| Insurance products | **$ 7,368** | $ 7,579 | $ 7,165 | **$ 6,665** | $ 7,359 | $ 7,168 |
| Wealth management products | **42,855** | 38,940 | 28,779 | **38,809** | 37,827 | 28,799 |
| **Total premiums and deposits** | **$ 50,223** | $ 46,519 | $ 35,944 | **$ 45,474** | $ 45,186 | $ 35,967 |

## Assets under Management

U.S. Division assets under management as at December 31, 2014 were a record US$343.5 billion, up 7% from December 31, 2013. This increase was due to market factors, including the impact of a decline in interest rates and higher equity markets, and strong net mutual fund sales, partially offset by variable and fixed annuity payments.

### Assets under Management

| December 31, ($ millions) | Canadian $ 2014 | Canadian $ 2013 | Canadian $ 2012 | US $ 2014 | US $ 2013 | US $ 2012 |
|---|---|---|---|---|---|---|
| General fund | **$ 136,682** | $ 112,930 | $ 112,405 | **$ 117,821** | $ 106,177 | $ 112,979 |
| Segregated funds | **174,397** | 162,596 | 137,931 | **150,330** | 152,873 | 138,635 |
| Mutual funds and other | **87,450** | 64,894 | 42,321 | **75,382** | 61,014 | 42,536 |
| **Total assets under management** | **$ 398,529** | $ 340,420 | $ 292,657 | **$ 343,533** | $ 320,064 | $ 294,150 |

## Strategic Direction

We remain focused on building a leading financial services company which leverages our trusted John Hancock brand and capabilities to provide solutions for our customers' wealth and protection needs. We expect to grow our leadership positions in our core markets, to expand into adjacent markets in a differentiated manner, and to develop a better understanding of – and closer relationships with – our customers. We believe our businesses are well positioned in their markets and have plans to continue to differentiate and grow as we move forward.

JH Insurance focuses on meeting the income protection, wealth transfer and estate planning needs of high net worth and emerging affluent customers. We are expanding our access to customers with an increased focus on financial advisors who traditionally have not included life insurance as part of their core business. We are creating a more modern buying experience supported by technology to allow us to present the right customer with the right product at the right time. In 2014, we introduced a web-based Field Underwriting Guide to help modernize the insurance application and underwriting process. Moving forward, we will continue to invest and build technology that continues to modernize the insurance purchasing process, improve our underwriting experience, and create a more engaging customer experience. We remain an active participant in the LTC insurance market and continue to focus on developing products that provide customer value through simplified and more transparent design.

JH Investments will continue to use its manager-of-managers model, which provides the flexibility to quickly react to new investment trends and adjust for poor performance, and delivered record mutual fund sales in 2014 and achieved record levels of assets under management in 2014. Also in 2014, we fully adapted our product suite and distribution structure to reflect the shifts in the advisor-sold channel to a fee-based model and increased reliance on broker/dealer platforms and recommended lists. We will focus on

strategic product development that complements our product portfolio and provides customers with solutions for complete asset allocation with a continued emphasis on institutional quality investment strategies delivered to the retail customer. JH Investments will work in collaboration with MAM to support the expansion of in-house asset management capabilities.

JH RPS is focused on maintaining a leadership position in the small-case market and expects to benefit from the continued growth of 401(k) plans and the increasingly critical role such plans have for a majority of Americans' retirement savings. Our leadership in the small-plan case market provides us the advantages of a significant asset base, industry-leading technical expertise, and deep distribution relationships. In 2014, we continued to build out service capabilities and expanded our recordkeeping services into the mid-sized plan market. We also introduced a comprehensive program focused on delivering price competitiveness, fee transparency, new investment options, and exceptional customer service to our in-force plans. At the end of 2014, we announced an agreement to acquire New York Life's RPS business. The transaction is expected to close in the first half of 2015, subject to regulatory approvals and other customary closing conditions. When the acquisition is completed, our 401(k) assets under administration are expected to increase by approximately US$50 billion (60%) to approximately US$135 billion, representing 55,000 retirement plans and over 2.5 million plan participants. Further, by joining New York Life's strength and expertise in the mid- and large-plan segments with our leadership in the small-plan segment we will significantly expand John Hancock's market presence and become one of the major plan providers in the United States.[15]

We remain focused on providing education and advice services to JH RPS plan participants who are no longer part of an employer sponsored 401(k) group plan. The education centre is staffed with customer service employees and licensed registered representatives who are able to provide a full range of services from basic information and forms to holistic financial planning and investment advice, depending upon the level of guidance the participant needs.

Our broker-dealer, Signator Investors, Inc., continues to focus on increasing advisor headcount, improving advisor productivity, and providing a more complete solution set which includes both insurance products and fee-based wealth management. In 2014, Signator completed the integration of Symetra Investment Services, increasing our affiliated advisor headcount by 15%.

[15] See "Caution regarding forward-looking statements" above.

# Corporate and Other

***Corporate and Other is comprised of investment performance on assets backing capital, net of amounts allocated to operating divisions, financing costs, Investment Division's external asset management business (Manulife Asset Management), our Property and Casualty ("P&C") Reinsurance business as well as our run-off reinsurance business lines including variable annuities and accident and health.***

For segment reporting purposes the impact of updates to actuarial assumptions, settlement costs for macro equity hedges and other non-operating items are included in this segment's earnings.

As at December 31, 2014, Corporate and Other contributed 8.4% of the Company's premiums and deposits and as at December 31, 2014, accounted for 6.7% of the Company's assets under management.

### Financial Performance

Corporate and Other reported a net loss attributed to shareholders of $896 million in 2014 compared with a net loss of $3,125 million in 2013. The net loss attributed to shareholders includes both the core loss (consisting of items we believe reflect the underlying earnings capacity of the business) and items excluded from core loss. The core loss was $430 million in 2014 compared with $719 million in 2013 and items excluded from core loss were charges of $466 million in 2014 compared with a loss of $2,406 million in 2013. Both years included $200 million of total company investment-related experience gains that are reported in core earnings.

The $289 million year-over-year decrease in core loss was driven by a reduction in macro hedging expected costs in 2014 (which is mostly offset by increased dynamic hedge costs in the operating divisions), lower expenses and the non-recurrence of tax charges. Partially offsetting these items were lower net investment yields as well as the non-recurrence of the release of P&C Reinsurance claims provisions. The $1,940 million reduction in items excluded from core loss primarily related to lower macro hedge experience costs and $291 million of lower charges related to changes in actuarial methods and assumptions.

The table below reconciles the net loss attributed to shareholders to the core loss for Corporate and Other for 2014, 2013 and 2012.

| **For the years ended December 31,**<br>**(C$ millions)** | **2014** | 2013 | 2012 |
|---|---|---|---|
| Core loss excluding expected cost of macro hedges and core investment-related experience | **$ (446)** | $ (506) | $ (345) |
| Expected cost of macro hedge | **(184)** | (413) | (489) |
| Investment-related experience included in core earnings | **200** | 200 | 200 |
| **Total core loss**[(1)] | **$ (430)** | $ (719) | $ (634) |
| Items to reconcile core loss to net loss attributed to shareholders: | | | |
| Direct impact of equity markets and interest rates[(2)] | **(94)** | (1,772) | (1,215) |
| Changes in actuarial methods and assumptions | **(198)** | (489) | (1,081) |
| Goodwill impairment charge | **–** | – | (200) |
| Investment-related experience related to mark-to-market items[(3)] | **14** | 31 | 78 |
| Offset to core investment-related experience above | **(200)** | (200) | (200) |
| Impact of tax changes, business dispositions and acquisitions | **12** | 50 | 62 |
| Restructuring charges | **–** | (26) | (57) |
| **Net loss attributed to shareholders** | **$ (896)** | $ (3,125) | $ (3,247) |

(1) Core loss is a non-GAAP measure. See "Performance and Non-GAAP Measures" below.

(2) The direct impact of equity markets and interest rates included $119 million (2013 – $1,438 million) of losses on derivatives associated with our macro equity hedges and losses of $41 million (2013 – $262 million) on the sale of AFS bonds. In 2012, it also included a $677 million charge related to lower fixed income URR assumptions used in the valuation of policy liabilities. Starting in 2013, the URR assumptions were updated quarterly and reported in the operating segments. In 2014, the charge reported in the operating divisions was $95 million (2013 – $256 million). Other items in this category netted to a gain of $66 million (2013 – charge of $72 million).

(3) Investment-related experience includes mark-to-market gains or losses on assets held in the Corporate and Other segment other than gains on AFS equities and seed money investments in new segregated or mutual funds.

### Revenue

Revenue was a loss of $76 million for 2014 compared with a loss of $2,058 million reported in 2013.

### Revenue

| **For the years ended December 31,**<br>**(C$ millions)** | **2014** | 2013 | 2012 |
|---|---|---|---|
| Net premium income | **$ 77** | $ 82 | $ 97 |
| Investment income (loss)[(1)] | **(23)** | (276) | (989) |
| Other revenue | **263** | 234 | 159 |
| Revenue before net realized and unrealized investment gains (losses) and on the macro hedge program | **$ 317** | $ 40 | $ (733) |
| Net realized and unrealized gains (losses)[(2)] on the macro hedge program | **(393)** | (2,098) | (42) |
| **Total revenue** | **$ (76)** | $ (2,058) | $ (775) |

(1) Includes losses of $60 million (2013 – $323 million) on the sale of AFS bonds.

(2) See "Financial Performance – Impact of Fair Value Accounting" above.

## Premiums and Deposits

Premiums and deposits were $8.3 billion for 2014 compared with $4.1 billion reported in 2013. These amounts primarily relate to Investment Division's external asset management business. (See "Investment Division" below).

### Premiums and Deposits

| For the years ended December 31, (C$ millions) | 2014 | 2013 | 2012 |
|---|---|---|---|
| Life Retrocession | **$ 2** | $ 2 | $ 2 |
| Property and Casualty Reinsurance | **75** | 80 | 95 |
| Institutional and other deposits | **8,185** | 3,974 | 7,880 |
| **Total premiums and deposits** | **$ 8,262** | $ 4,056 | $ 7,977 |

## Assets under Management

Assets under management of $46.6 billion as at December 31, 2014 (2013 – $36.7 billion) included assets managed by Manulife Asset Management on behalf of third-party institutional clients of $41.2 billion (2013 – $32.5 billion) and the Company's own funds of $13.4 billion (2013 – $4.9 billion), partially offset by a $8.0 billion (2013 – $0.7 billion) total company adjustment related to the reclassification of derivative positions from invested assets to other assets and liabilities. The increase in the Company's own funds includes $2.2 billion of net cash proceeds in escrow from the issuance of subscription receipts, net income earned over the period and the impact of the stronger U.S. dollar.

### Assets under Management

| As at December 31, (C$ millions) | 2014 | 2013 | 2012 |
|---|---|---|---|
| General fund | **$ 5,567** | $ 4,413 | $ (1,043) |
| Segregated funds – elimination of amounts held by the Company | **(202)** | (175) | (166) |
| Institutional advisory accounts | **41,248** | 32,486 | 28,776 |
| **Total assets under management** | **$ 46,613** | $ 36,724 | $ 27,567 |

## Strategic Direction

Our P&C Reinsurance business provides substantial retrocessional capacity for a very select clientele in the property and aviation reinsurance markets. We manage the risk exposures in relation to the overall balance sheet risk and volatility as well as the prevailing market pricing conditions.

The strategic direction for our Manulife Asset Management business is included in the "Investment Division" section that follows.

# Investment Division

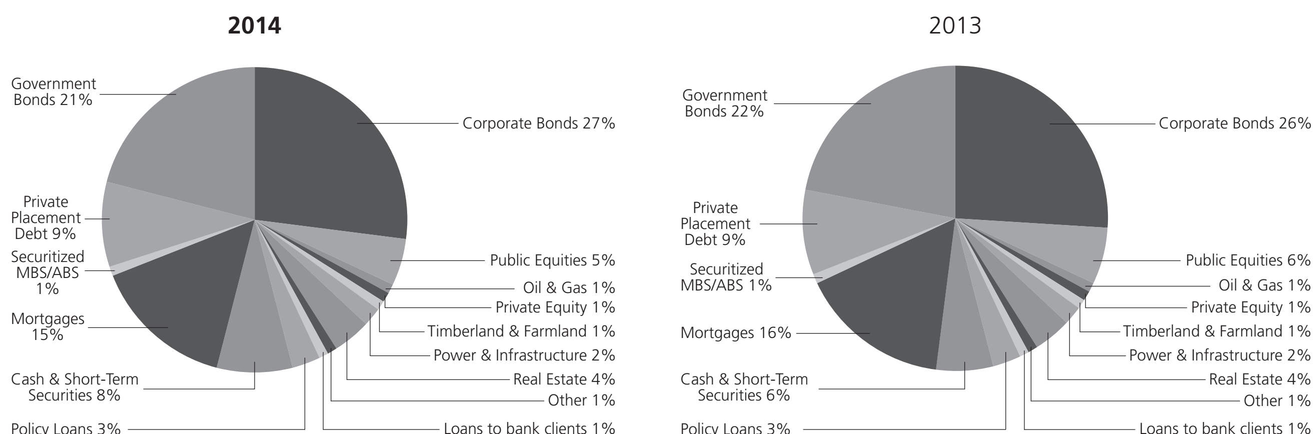
***Manulife's Investment Division manages the Company's general fund assets and, through Manulife Asset Management ("MAM"), provides comprehensive asset management solutions to institutional clients and investment funds, and investment management services to retail clients through Manulife and John Hancock product offerings. The Investment Division has expertise managing a broad range of investments including public and private bonds, public and private equities, commercial mortgages, real estate, power and infrastructure, timberland, farmland, and oil and gas, and provides asset allocation solutions. With a team of more than 2,600 employees, the Investment Division has a physical presence in key markets, including the United States, Canada, the United Kingdom, Japan, Hong Kong, and Singapore. In addition, MAM has a joint venture asset management business in China, Manulife TEDA Fund Management Company Ltd.***

## General Fund

Our investment philosophy for the General Fund is to invest in an asset mix that optimizes our risk adjusted returns and matches the characteristics of our underlying liabilities. We follow a bottom up approach which combines our strong asset management skills with an in-depth understanding of the characteristics of each investment. We invest in a diversified mix of assets, including a variety of alternative long-duration asset classes. Our diversification strategy has historically produced superior risk adjusted returns while reducing overall risk. We use a disciplined approach across all asset classes and we do not chase yield in the riskier end of the fixed income market. This strategy has resulted in a well-diversified, high quality investment portfolio, which consistently delivers strong and steady investment-related experience. Our risk management strategy is outlined in the "Risk Management and Risk Factors" section below.

## General Fund Assets

As at December 31, 2014, our General Fund invested assets totaled $269.3 billion compared with $232.7 billion at the end of 2013. The following charts show the asset class composition as at December 31, 2014 and December 31, 2013.



## Investment Income

| For the year ended December 31, (C$ millions, unless otherwise stated) | 2014 | | 2013 | |
|---|---|---|---|---|
| | Income | Yield[1] | Income | Yield[1] |
| Interest income | **$ 9,023** | **3.7%** | $ 8,670 | 3.8% |
| Dividend, rental and other income | **1,800** | **0.7%** | 1,425 | 0.6% |
| Impairments and provision for loan losses | **(165)** | **(0.1%)** | (39) | – |
| Other, including gains (losses) on sale of AFS debt securities | **150** | **0.1%** | (196) | (0.1%) |
| Investment income before realized and unrealized gains on assets supporting insurance and investment contract liabilities and on macro equity hedges | **$ 10,808** | | $ 9,860 | |
| Realized and unrealized gains (losses) on assets supporting insurance and investment contract liabilities and on macro hedging program | | | | |
| Debt securities | **$ 8,935** | **3.6%** | $ (7,759) | (3.3%) |
| Public equities | **772** | **0.3%** | 1,351 | 0.6% |
| Mortgages and private placements | **58** | **–** | 38 | – |
| Alternative long-duration assets and other investments | **885** | **0.4%** | 723 | 0.3% |
| Derivatives, including macro equity hedging program | **6,442** | **2.6%** | (11,960) | (5.1%) |
| | **$ 17,092** | | $ (17,607) | |
| **Total investment income (loss)** | **$ 27,900** | **11.8%** | $ (7,747) | (3.3%) |

[1] Yields are based on IFRS income and are calculated using the geometric average of assets held at IFRS carrying value during the reporting period.

In 2014, the $27.9 billion of investment income (2013 – loss of $7.7 billion) consisted of:

- $10.8 billion of investment income before net realized and unrealized gains on assets supporting insurance and investment contract liabilities and on macro equity hedges (2013 – $9.9 billion); and
- $17.1 billion of net realized and unrealized gains on assets supporting insurance and investment contract liabilities and on macro equity hedges (2013 – loss of $17.6 billion).

The increase in investment income before realized and unrealized gains was due to the strengthening of global currencies compared to the Canadian dollar, and the gains from the sale of AFS debt securities held in our Corporate and Other segment.

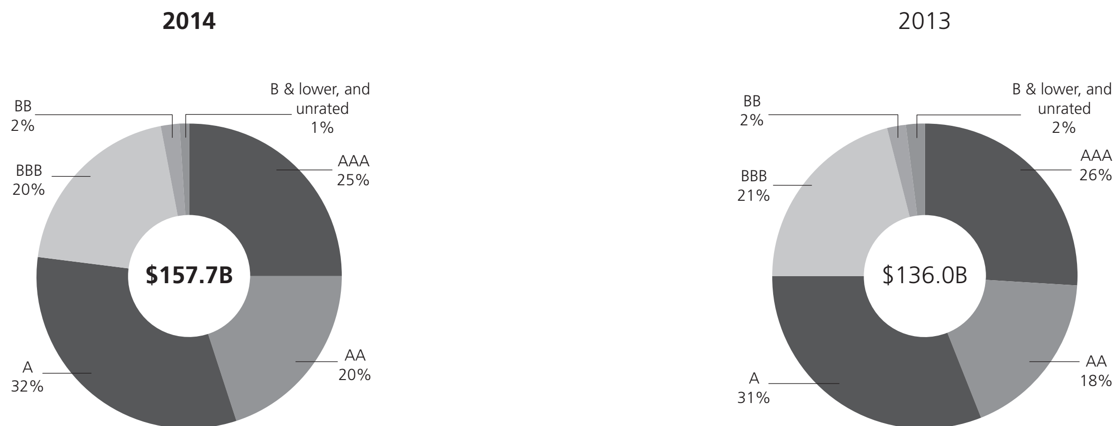
Net realized and unrealized gains (losses) primarily reflect the impact of changes in interest rates. In 2014, the general decrease in interest rates resulted in gains of $8.9 billion on debt securities, while in 2013 the increase in interest rates resulted in losses of $7.8 billion. A relatively modest increase in equity markets in 2014 resulted in gains of $0.8 billion (2013 – gains of $1.4 billion) on public equities supporting insurance and investment contract liabilities. Net gains of $6.4 billion on derivatives in 2014, including the macro equity hedging program, primarily related to the impact of lower interest rates on the fair value of interest rate swaps, partially offset by the impact of higher equity markets on shorted equity futures.

As the measurement of insurance and investment contract liabilities includes estimates regarding future expected investment income on assets supporting these liabilities, net income reflects the difference between the mark-to-market accounting on the measurement of both assets and liabilities. See "Financial Performance – Impact of Fair Value Accounting" above.

## Debt Securities and Private Placement Debt

We manage our high quality fixed income portfolio to optimize yield and quality while ensuring that asset portfolios remain diversified by sector, industry, duration, issuer, and geography. As at December 31, 2014, our fixed income portfolio of $157.7 billion (2013 – $136.0 billion) was 97% investment grade and 77% was rated A or higher (2013 – 96% and 75%, respectively). Our private placement debt holdings provide diversification benefits (issuer, industry, and geography) and, because they often have stronger protective covenants and collateral than debt securities, they typically provide better credit protection and potentially higher recoveries in the event of default. Geographically, 27% (2013 – 29%) is invested in Canada, 51% (2013 – 50%) is invested in the U.S., and the remaining 22% (2013 – 21%) is invested in Asia, Europe and other geographic areas.

### Debt Securities and Private Placement Debt – by Credit Quality[(1)]




(1) Reflects credit quality ratings as assigned by Nationally Recognized Statistical Rating Organizations ("NRSRO") using the following priority sequence order: Standard & Poor's, Moody's, Dominion Bond Rating Service, Fitch, and Japan Credit Rating. For those assets where ratings by NRSRO are not available, disclosures are based upon internal ratings as described in the "Risk Management and Risk Factors" section below.

| As at December 31, Per cent of carrying value | 2014 Debt securities | 2014 Private placement debt | 2014 Total | 2013 Debt securities | 2013 Private placement debt | 2013 Total |
|---|---|---|---|---|---|---|
| Government and agency | **43** | **10** | **38** | 44 | 10 | 39 |
| Utilities | **13** | **47** | **18** | 12 | 41 | 17 |
| Financial | **15** | **6** | **14** | 16 | 9 | 15 |
| Energy | **8** | **9** | **8** | 7 | 9 | 7 |
| Consumer (non-cyclical) | **5** | **9** | **6** | 5 | 10 | 6 |
| Industrial | **5** | **7** | **5** | 5 | 7 | 5 |
| Basic materials | **2** | **5** | **3** | 2 | 6 | 3 |
| Consumer (cyclical) | **2** | **6** | **2** | 2 | 7 | 2 |
| Securitized (MBS/ABS) | **3** | **–** | **2** | 3 | – | 2 |
| Telecommunications | **2** | **–** | **2** | 2 | – | 2 |
| Technology | **1** | **1** | **1** | 1 | – | 1 |
| Media and internet | **1** | **–** | **1** | 1 | 1 | 1 |
| **Total per cent** | **100** | **100** | **100** | 100 | 100 | 100 |
| **Total carrying value (C$ billions)** | **$ 134.4** | **$ 23.3** | **$ 157.7** | $ 115.0 | $ 21.0 | $ 136.0 |

As at December 31, 2014, gross unrealized losses on our fixed income holdings were $0.6 billion or well less than 1% of the amortized cost of these holdings (2013 – $2.9 billion or 2%). Of this amount, $65 million (2013 – $73 million) related to debt securities trading below 80% of amortized cost for more than 6 months. Securitized assets represented $19 million of the gross unrealized losses and $4 million of the amounts trading below 80% of amortized cost for more than 6 months (2013 – $55 million and $14 million, respectively). After adjusting for debt securities held in participating policyholder and pass-through segments and the provisions for credit included in the insurance and investment contract liabilities, the potential impact to shareholders' pre-tax earnings for debt securities trading at less than 80% of amortized cost for greater than 6 months was approximately $59 million as at December 31, 2014 (2013 – $52 million).

As at December 31, 2014, the Company had an aggregate $3.4 billion of public and private securitized assets, consisting of Commercial Mortgage Backed Securities, Residential Mortgage Backed Securities, and Asset Backed Securities representing 1% of total invested assets (2013 – $3.4 billion and 1%).

## Mortgages

As at December 31, 2014, mortgages represented 15% (2013 – 16%) of invested assets with 62% of the mortgage portfolio invested in Canada (2013 – 62%) and 38% in the U.S. (2013 – 38%). As shown below, the overall portfolio is also diversified by geographic region, property type, and borrower. Of the total mortgage portfolio, 25% (2013 – 28%) is insured, primarily by the Canada Mortgage and Housing Corporation ("CMHC") – Canada's AAA rated government backed national housing agency, with 49% (2013 – 54%) of residential mortgages insured and 6% (2013 – 7%) of commercial mortgages insured.

| As at December 31, (C$ millions) | 2014 | | 2013 | |
|---|---|---|---|---|
| | Carrying value | % of total | Carrying value | % of total |
| Commercial | | | | |
| Retail | **$ 6,359** | **16** | $ 5,901 | 16 |
| Office | **6,160** | **16** | 5,647 | 15 |
| Multi-family residential | **3,863** | **10** | 3,533 | 9 |
| Industrial | **2,127** | **5** | 2,103 | 6 |
| Other commercial | **2,221** | **5** | 2,143 | 6 |
| | **$ 20,730** | **52** | $ 19,327 | 52 |
| Manulife Bank single-family residential | **17,619** | **45** | 16,998 | 45 |
| Agricultural | **1,109** | **3** | 1,233 | 3 |
| **Total mortgages** | **$ 39,458** | **100** | $ 37,558 | 100 |

Our commercial mortgage loans are originated with a hold-for-investment philosophy. They have low loan-to-value ratios, high debt-service coverage ratios, and currently no loans are in arrears. Geographically, 33% are in Canada and 67% are in the U.S. (2013 – 33% and 67%, respectively). We are diversified by property type and largely avoid risky market segments such as hotels, construction loans and second liens.

### Non-CMHC Insured Commercial Mortgages(1)

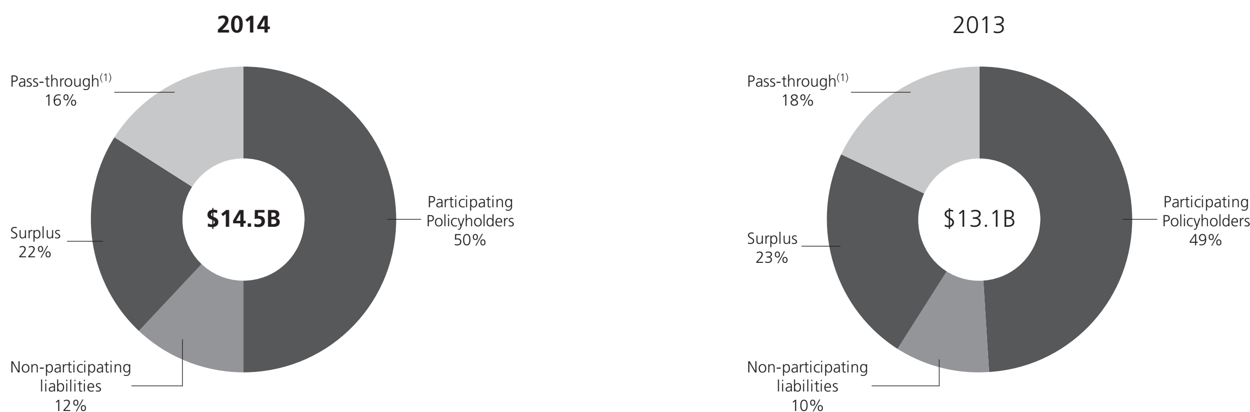
| As at December 31, | 2014 | | 2013 | |
|---|---|---|---|---|
| | Canada | U.S. | Canada | U.S. |
| Loan-to-Value ratio(2) | **60%** | **60%** | 59% | 61% |
| Debt-Service Coverage ratio(2) | **1.52x** | **1.87x** | 1.47x | 1.85x |
| Average duration | **3.8 years** | **5.8 years** | 3.1 years | 5.6 years |
| Average loan size (C$ millions) | **$ 6.6** | **$ 13.4** | $ 5.4 | $ 12.0 |
| Loans in arrears(3) | **–** | **–** | – | – |

(1) Excludes Manulife Bank commercial mortgage loans of $35 million (2013 – $38 million).
(2) Loan-to-Value and Debt-Service Coverage are based on re-underwritten cash flows.
(3) Arrears defined as over 90 days past due in Canada and over 60 days past due in the U.S.

## Public Equities

As at December 31, 2014, public equity holdings of $14.5 billion represented 5% (2013 – $13.1 billion and 6%) of invested assets and, when excluding participating policyholder and pass-through segments, represented 2% (2013 – 2%) of invested assets. The portfolio is diversified by industry sector and issuer. Geographically, 34% (2013 – 34%) is held in Canada, 35% (2013 – 32%) is held in the U.S., and the remaining 31% (2013 – 34%) is held in Asia, Europe and other geographic areas.

### Public Equities – by Segment




(1) Public equities denoted as pass-through are held by the Company to support the yield credited on equity-linked investment funds for Canadian and Indonesian life insurance products.

## Alternative Long-Duration Assets ("ALDA")

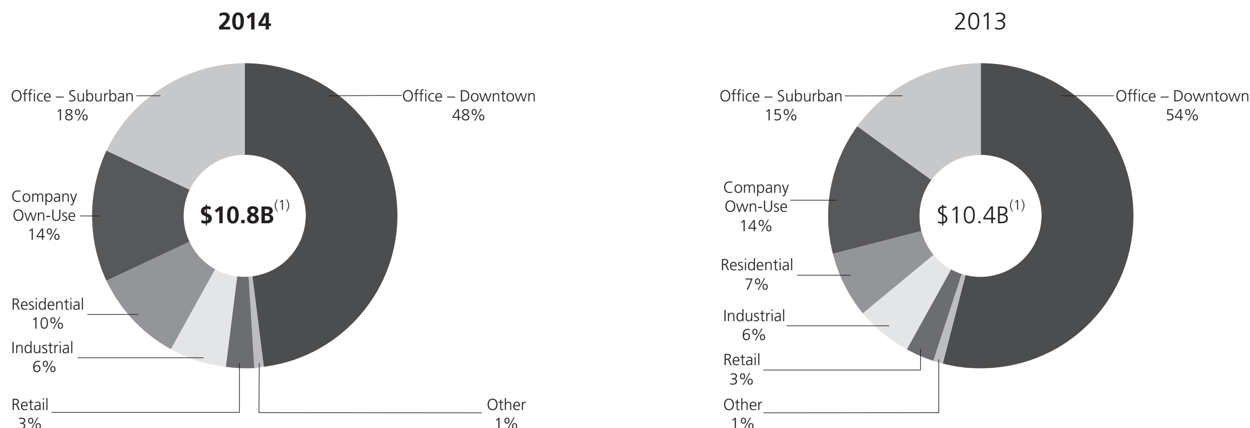
Our alternative long-duration asset portfolio is comprised of a diverse range of asset classes with varying degrees of correlations. The portfolio typically consists of private assets representing investments in varied sectors of the economy which act as a natural hedge against future inflation and serves as an alternative source of asset supply to long-term corporate bonds. In addition to being a suitable match for our long-duration liabilities, these assets provide enhanced yields and diversification relative to traditional fixed income markets. The vast majority of our alternative long-duration assets are managed in-house.

As at December 31, 2014, alternative long-duration assets of $23.3 billion represented 9% (2013 – $19.9 billion and 9%) of invested assets. The fair value of total ALDA was $24.0 billion at December 31, 2014 (2013 – $20.8 billion). The carrying value by sector and/or asset type is as follows:

| As at December 31, (C$ millions) | 2014 Carrying value | 2014 % of total carrying value | 2013 Carrying value | 2013 % of total carrying value |
|---|---|---|---|---|
| Real estate | **$ 10,101** | **44** | $ 9,708 | 49 |
| Power and infrastructure | **4,002** | **17** | 3,486 | 18 |
| Private equity | **2,758** | **12** | 2,181 | 11 |
| Timberland | **2,694** | **12** | 1,712 | 9 |
| Oil and gas | **2,161** | **9** | 1,643 | 8 |
| Farmland | **1,255** | **5** | 1,058 | 5 |
| Other | **289** | **1** | 126 | – |
| **Total ALDA** | **$ 23,260** | **100** | $ 19,914 | 100 |

## Real Estate

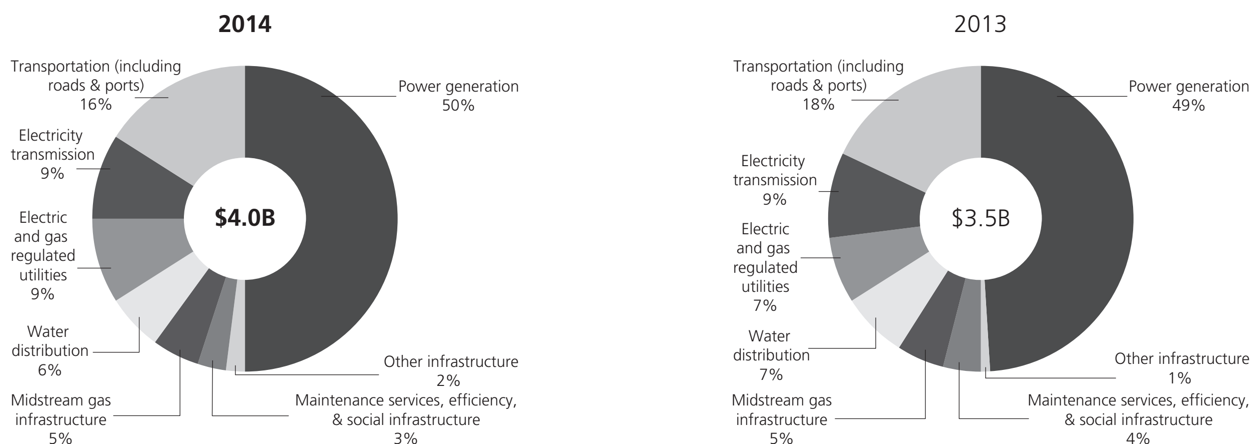
Our real estate portfolio is diversified by geographic region, with 62% located in the U.S., 35% in Canada, and 3% in Asia as at December 31, 2014 (2013 – 61%, 35%, and 4%, respectively). This high quality portfolio has virtually no leverage and is primarily invested in premium urban office towers, concentrated in cities with stable growth, and highly diverse economies in North America and Asia. The portfolio is well positioned with an average occupancy rate of 95% (2013 – 95%) and an average lease term of 6.7 years (2013 – 6.5 years). During 2014, we executed 4 acquisitions, representing $0.5 billion market value of commercial real estate assets (2013 – 5 acquisitions and $0.8 billion). The segment composition of our real estate portfolio based on fair value is as follows:




(1) These figures represent the fair value of the real estate portfolio. The carrying value of the portfolio was $10.1 billion and $9.7 billion at December 31, 2014 and December 31, 2013, respectively.

### Power & Infrastructure

We invest both directly and through funds in a variety of industry specific asset classes, listed below. The portfolio is well diversified with over 220 portfolio companies. The portfolio is predominately invested in the U.S. and Canada, but also in the United Kingdom, Europe and Australia. Our power and infrastructure holdings are as follows:




### Timberland & Farmland

Our timberland and farmland assets are managed by a proprietary entity, Hancock Natural Resources Group ("HNRG"). In addition to being the world's largest timberland investment manager for institutional investors[16], with timberland properties in the U.S., New Zealand, Australia, Chile, Canada and Brazil, HNRG also manages farmland properties in the U.S., Australia and Canada. HNRG recently established a renewable energy business unit focused on investments in the bio-energy sector. The General Fund's timberland portfolio comprised 19% of HNRG's total timberland assets under management ("AUM") (2013 – 17%). The farmland portfolio includes annual (row) crops, fruit crops, wine grapes, and nut crops. The General Fund's holdings comprised 47% of HNRG's total farmland AUM (2013 – 45%).

### Private Equities

Our portfolio includes both directly held private equity and private equity funds. Both are diversified across vintage years and industry sectors.

### Oil & Gas

This category is comprised of $1.4 billion (2013 – $0.9 billion) in our conventional Canadian oil and gas properties managed by our subsidiary, NAL Resources, and various other oil and gas private equity interests of $0.8 billion (2013 – $0.7 billion). Production mix in 2014 was approximately 57% crude oil, 34% natural gas, and 9% natural gas liquids (2013 – 55%, 36%, and 9%, respectively).

## Manulife Asset Management

Manulife Asset Management ("MAM") provides comprehensive asset management solutions to institutional clients and investment funds, and investment management services to retail clients through Manulife and John Hancock product offerings.

As at December 31, 2014, MAM had $321 billion of AUM compared with $280 billion at the end of 2013. The following charts show the movement in AUM over the year as well as assets by asset class.

### AUM Movement

| (C$ millions) | **2014** | 2013 |
|---|---|---|
| MAM external AUM, beginning of year | **$ 242,808** | $ 205,422 |
| Net institutional sales | **4,834** | 831 |
| Net affiliate sales | **(404)** | 1,573 |
| Asset transfers | **838** | 836 |
| Market impact | **11,397** | 22,294 |
| Currency impact | **18,090** | 11,852 |
| MAM external AUM, end of year | **$ 277,563** | $ 242,808 |
| General Fund AUM (managed by MAM), beginning of year | **$ 37,418** | $ 34,974 |
| net flows, market and currency impacts | **5,979** | 2,444 |
| General Fund AUM (managed by MAM), end of year | **$ 43,397** | $ 37,418 |
| **Total MAM AUM** | **$ 320,960** | $ 280,226 |

[16] Based on the global timber investment management organization ranking in the *RISI International Timberland Ownership and Investment Database.*

## AUM Composition

| As at December 31, (C$ millions) | 2014 | 2013 |
|---|---|---|
| Affiliate / Retail[1]: | | |
| Fixed income | **$ 71,434** | $ 61,043 |
| Balanced | **15,837** | 11,972 |
| Equity | **77,712** | 64,939 |
| Asset allocation[2] | **70,799** | 71,865 |
| Alternatives | **236** | 199 |
| | **$ 236,018** | $ 210,018 |
| Institutional: | | |
| Fixed income | **$ 15,189** | $ 12,823 |
| Balanced | **1,721** | 1,702 |
| Equity | **11,183** | 6,429 |
| Asset allocation | **24** | 19 |
| Alternatives | **13,428** | 11,817 |
| | **$ 41,545** | $ 32,790 |
| **MAM External AUM** | **$ 277,563** | $ 242,808 |
| Fixed income | **$ 27,514** | $ 23,643 |
| Equity | **12,049** | 10,629 |
| Alternative long-duration assets | **3,834** | 3,146 |
| **General Fund AUM (managed by MAM)** | **$ 43,397** | $ 37,418 |
| **Total MAM AUM** | **$ 320,960** | $ 280,226 |

[1] Includes 49% of assets managed by Manulife TEDA Fund Management Company Ltd.
[2] Asset allocation assets exclude $59,760 million included in other categories (2013 – $48,098 million).

Our AUM composition has benefited from a shift in our total asset base as our clients move to higher-margin institutional products, driven by record sales, and in our retail asset base, as clients move to higher margin equity actively managed and balanced products, driven by positive market performance.

## Total MAM External AUM by Client Domicile

We operate from offices in 17 countries and territories, managing local and international investment products for our global client base.

| As at December 31, (C$ millions) | 2014 | % | 2013 | % |
|---|---|---|---|---|
| United States | **$ 189,008** | **68** | $ 170,216 | 70 |
| Canada | **50,228** | **18** | 43,634 | 18 |
| Asia & Japan | **35,966** | **13** | 28,724 | 12 |
| Europe | **2,361** | **1** | 234 | – |
| **Total MAM External AUM** | **$ 277,563** | **100** | $ 242,808 | 100 |

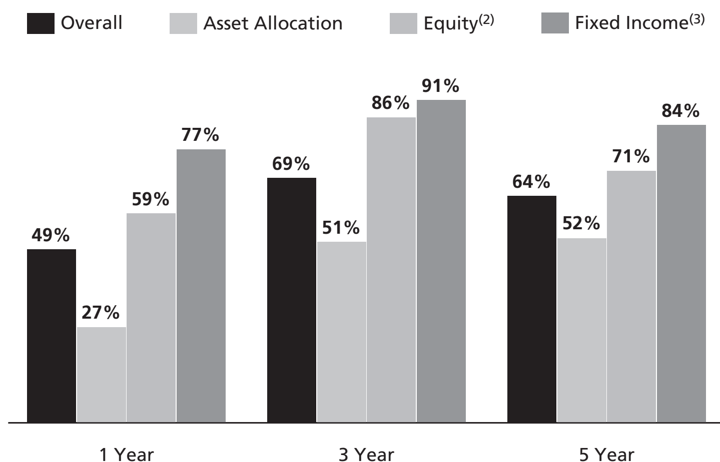
Increases in assets were driven by Europe and Asia, respectively, by a large equity mandate win from a United Kingdom-based client as well as continued expansion of sales efforts across Asia.

## Institutional Sales

In 2014, institutional sales for our public markets' investment teams were driven by a series of sizable mandates that were balanced across regions and asset classes. Our Private Markets business team won two external mandates in its inaugural year highlighting our longstanding experience in public and private markets to provide investors unique opportunities to meet their investment goals.

### Investment Performance

#### % of AUM Outperforming Benchmarks[1]




As at December 31, 2014, investment performance has consistently exceeded our peers across all classes on a 3- and 5-year basis.

(1) Investment performance is based on actively managed MAM Public Markets account-based, asset-weighted performance versus their primary internal targets, which includes accounts managed by portfolio managers of MAM. Some retail accounts are evaluated net of fees versus their respective Morningstar peer group. All institutional accounts and all other retail accounts are evaluated gross of fees versus their respective index.
(2) Includes balanced funds.
(3) Includes money market funds.

At year end, MAM had 72 funds rated Four- or Five-stars by Morningstar, an increase of 2 funds since December 31, 2013, excluding money market funds. In addition to providing better than industry performance[17] for our Wealth Management businesses in Canada, the U.S. and Asia, we also manufactured 55 new mutual funds and segregated funds.

### Strategic Direction

The demand for multi-asset class solutions, real assets, global and emerging market equities, and public and private fixed income persists as institutional and retail investors continue to seek higher risk-adjusted returns. MAM's strategic priorities are aligned to continue to capitalize on this demand by closely aligning our global wealth and asset management business and leveraging our skills and expertise across our international operation to build long-lasting customer relationships. In May 2014, MAM was ranked as the 30th largest asset manager globally in 2013, up from 34th in 2012.[18]

Our **MAM public markets** business continues to grow, backed by strong investment performance. As we expand, MAM's defining characteristics remain: alpha-focused active management, a boutique environment, global footprint, and client-centric culture. In addition to our current markets, we expect to expand our business into new geographies, as we continue to increase our global distribution channels. In 3Q14, Manulife announced that it had entered into an agreement to acquire the Canadian-based operations of Standard Life plc, which include Standard Life Investments Inc. The acquisition, which closed on January 30, 2015, is expected to broaden the range of asset management products and solutions available in Canada and around the globe. In addition, we expanded our asset classes and services through the addition of a global natural resources equity team, an emerging equity markets team, along with a Head of Asia for our Portfolio Solutions Group. In 2014, we strengthened the global strategic management of our wealth and asset management businesses with the appointment of Kai Sotorp as the Global Head of Wealth and Asset Management.

**MAM Private Markets** had an excellent inaugural year and was awarded a significant commercial real estate mandate and a private commercial mortgage mandate. Private Markets is well positioned as investors have shown increased appetite for private assets to enhance yields in a low interest-rate environment. In addition to our existing timberland, farmland, and mezzanine debt offerings, Private Markets made meaningful progress in our three prioritized growth asset classes: commercial real estate equity, commercial mortgages and private placement debt, based on their market potential and ability to leverage Manulife's existing capabilities and capacity. We will continue to pursue mandates that are aligned with our core offerings, targeting institutional as well as ultra-high and high net worth investors.

In 2014, we successfully focused our product development and fundraising efforts on the prioritized key asset classes. We recruited Michael J. McNamara to be the Global Head of Real Estate Investments to lead the development and execution of the real estate investment strategy as well as a leader for marketing the investment capabilities of Manulife's private placements and commercial mortgages teams. We will continue to focus on product development and build our momentum through new long-term partnerships.

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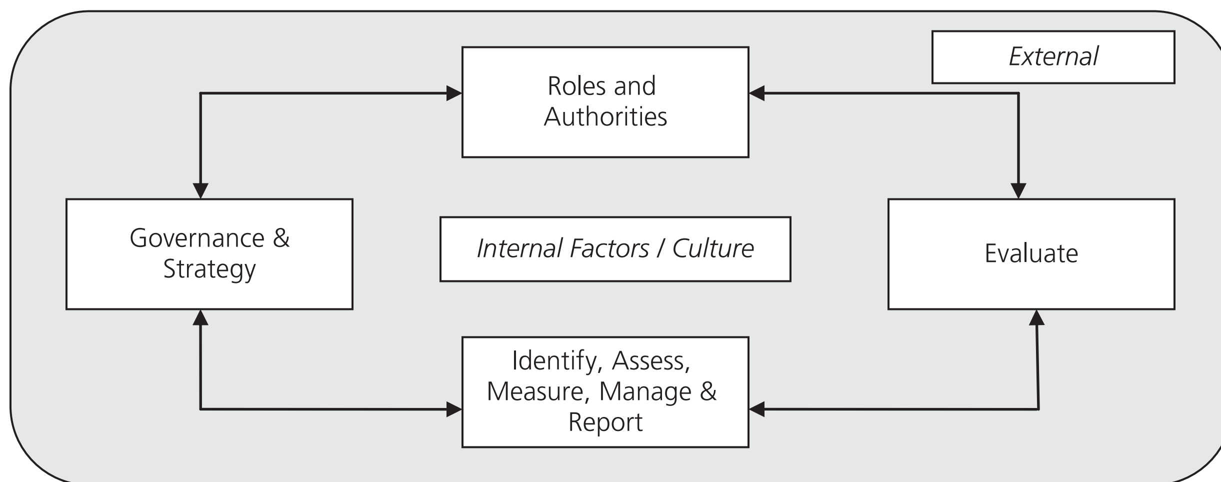
[17] Performance above median for all asset classes in 3- and 5-year time frames.
[18] Based on the institutional trade publication, *Pension & Investments*.

# Risk Management and Risk Factors

**Overview**

Manulife is a global financial institution offering insurance, wealth and asset management products and other financial services. These businesses subject the Company to a broad range of risks. Our goal is to strategically optimize risk taking and risk management to support long-term revenue, earnings and capital growth. We seek to achieve this by capitalizing on business opportunities and strategies with appropriate risk/return profiles; establishing sufficient management expertise to effectively execute strategies, and to identify, understand and manage underlying inherent risks; pursuing strategies and activities aligned with the Company's corporate and ethical standards and operational capabilities; pursuing opportunities and risks that enhance diversification; and, making risk taking decisions with analyses of inherent risks, risk controls and mitigations, and risk/return trade-off.

**Enterprise Risk Management ("ERM") Framework**




The Company's ERM Framework provides a structured approach to implementing risk taking and risk management activities at an enterprise level supporting the Company's long-term revenue, earnings and capital growth strategy. It is communicated through risk policies and standards which ensure consistent design and execution of strategies across the organization. We have a common approach to managing all risks to which the Company is exposed, and a consistent evaluation of potential returns on contemplated business activities on a risk-adjusted basis. These policies and standards of practice cover:

- Assignment of accountability and delegation of authority for risk oversight and risk management. The types and levels of risk the Company seeks given its strategic plan and risk appetite. Risk identification, measurement, assessment and mitigation which enable effective management and monitoring of risk.
- Validation, back testing and independent oversight to confirm that the Company generated the risk profile it intended and the root cause analysis of any notable variation.

Manulife's ERM practices are influenced and impacted by internal and external factors (such as economic conditions, political environments, technology, risk culture etc.) which can significantly impact the levels and types of risks the Company might face in its pursuit to strategically optimize risk taking and risk management. Our ERM Framework incorporates relevant impacts and mitigating actions as appropriate.

A strong risk culture and a common approach to risk management are integral to Manulife's risk management practices. Manulife's Board of Directors is accountable for the oversight of risk management, and delegates this authority through a governance framework that is centered on the "three lines of defense" model that includes a network of risk oversight committees, global risk officers, global risk managers and global risk policies and practices:

The Company's first line of defense includes the Chief Executive Officer ("CEO") and Business Unit General Managers. Businesses are ultimately accountable for the risks they assume and for the day to day management of the risks and related controls. They are supported by global risk managers and risk management professionals across the enterprise that are responsible for specific risk taking activities and the design and execution of risk mitigation practices that are consistent with the Company's ERM policy and individual risk management strategies.

The second line of defense is comprised of the Company's Chief Risk Officer ("CRO"), the Group Risk Management ("GRM") function, global oversight functions and divisional chief risk officers and functions. Together this group provides oversight of risk taking and risk mitigation activities across the enterprise. Enterprise-level risk oversight committees, including the Executive Risk Committee ("ERC"), also provide oversight of risk taking and risk mitigation activities.

The third line of defense is comprised of Audit Services, which provides assurance that controls are effective and appropriate relative to the risk inherent in the business, and that risk mitigation programs and risk oversight functions are effective in managing risks.

## Risk Culture

Manulife strives for a risk aware culture, where individuals and groups are encouraged, feel comfortable and are proactive in making transparent, balanced risk-return decisions that are in the long term interests of the Company. Key areas of focus pertaining to risk culture include: aligning individual and Company objectives; identifying and escalating risks before they become significant issues; promoting a collaborative approach that enables appropriate risk taking; ensuring transparency in identifying, communicating and tracking risks; and systematically acknowledging and surfacing material risks.

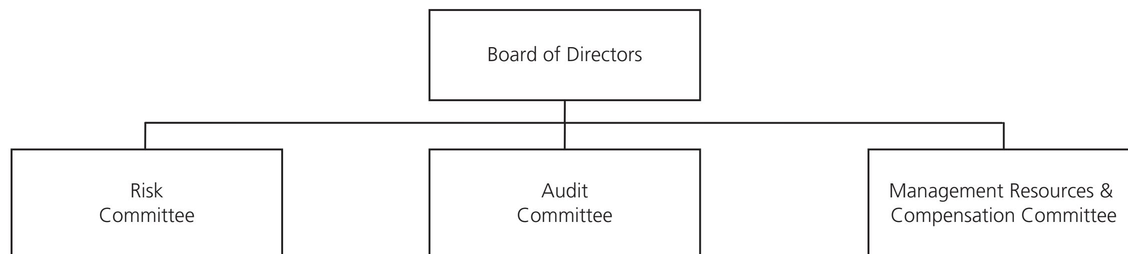
## Risk Governance

The Board of Directors oversees management's implementation of appropriate frameworks, processes and systems to identify and manage the principal risks of the Company's business and periodically reviews and approves our enterprise risk policy, our risk taking philosophy and overall risk appetite.

The CEO is directly accountable to the Board of Directors for all risk taking activities and risk management practices, and is supported by the Company's CRO as well as by the ERC. Together, they shape and promote our risk culture and guide risk taking throughout our global operations and strategically manage our overall risk profile. The ERC, along with other executive-level risk oversight committees, establishes risk policies, guides risk taking activity, monitors significant risk exposures and sponsors strategic risk management priorities throughout the organization. The Board and executive-level risk oversight committees and key elements of their mandates are presented below.

GRM, under the direction of the CRO, establishes and maintains our enterprise risk management framework and oversees the execution of individual risk management programs across the enterprise. GRM seeks to ensure a consistent enterprise-wide assessment of risk, risk-based capital and risk-adjusted returns across all operations.

### Board of Directors and Board Committees

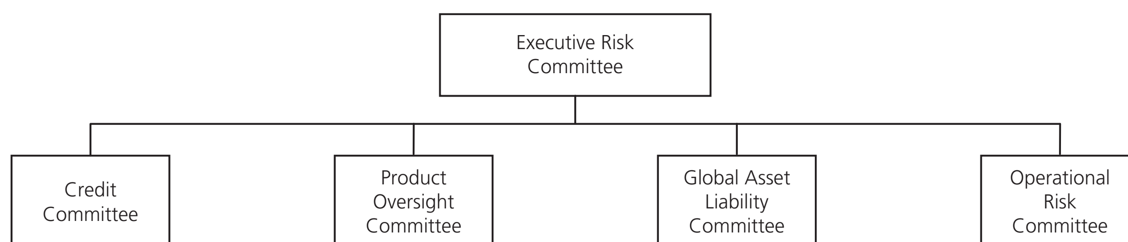



***Risk Committee*** – This committee is responsible for assisting the Board in its oversight of the Company's management of its principal risks. The committee also assesses, reviews and approves policies, procedures and controls in place to manage risks and reviews the Company's compliance with risk policies.

***Audit Committee*** – This committee is responsible for assisting the Board in its oversight role with respect to the quality and integrity of financial information, the effectiveness of the Company's internal controls over financial reporting and the effectiveness of the Company's compliance with legal and regulatory requirements. It also oversees activities and risks related to conflicts of interest, confidentiality of information, customer complaints and related party transactions.

***Management Resources and Compensation Committee*** – This committee oversees the Company's global human resources strategy, policies, programs with a special focus on management succession, development and compensation, and risk management relating to these programs.

### Executive Committees




***Executive Risk Committee*** – The ERC approves risk policies and oversees the execution of our enterprise risk management program. The committee monitors our overall risk profile, including key and emerging risks, and guides risk-taking activities. As part of these activities, the ERC monitors material risk exposures, and sponsors strategic risk management priorities including overseeing risk reduction plans. The ERC also reviews and assesses the impact of business strategies, opportunities and initiatives on our overall risk position.

***Credit Committee*** – The Credit Committee establishes credit risk policies, risk management standards of practice and oversees the credit risk management program. The Credit Committee monitors our overall credit risk profile, key and emerging risk exposures, risk management activities, and ensures compliance with credit risk policies. The committee also approves large individual credits and investments, and manages credit risk jointly with the Global Asset Liability Committee.

***Global Asset Liability Committee*** ("GALCO") – The GALCO establishes market and liquidity risk policies and oversees related market and liquidity risk and asset liability management programs and practices. The committee monitors our overall market risk profile, key and emerging risk exposures and risk management activities as well as compliance with related policies. GALCO also approves target investment strategies and, as noted above, manages credit risk jointly with the Credit Committee.

***Product Oversight Committee*** ("POC") – The POC establishes product design and pricing policies and insurance risk policies, as well as risk management standards of practice with regards to risks covered by these policies. It oversees the insurance risk management program and the process for approval of new product initiatives and third party reinsurance arrangements for new business. The POC monitors product design and pricing, and insurance risk across the Company, as well as, overseeing underwriting and claims risk committee activities, including retention management and underwriting and claims risk oversight.

***Operational Risk Committee*** ("ORC") – The ORC oversees operational risk exposures and associated governance and risk processes. It oversees the maintenance and enhancement of our overall Operational Risk Management Framework, including implementation of our Operational Risk Management Program and overseeing specific operational risk management programs and practices. The ORC reviews and approves operational risk policies and monitors compliance with such policies.

**Risk Appetite**

Risk taking activities are managed within the Company's overall risk appetite, which defines the amount and types of risks the Company is willing to assume, and is comprised of three components: risk philosophy, risk appetite statements, and risk limits and tolerances.

Manulife is a global financial institution offering insurance, wealth and asset management products and other financial services. All of these activities involve some elements of risk taking. Our objective is to balance the Company's level of risk with our long-term revenue, earnings and capital growth, in order to achieve consistent and sustainable performance over the long-term that benefits our customers and shareholders. When making decisions about risk taking and risk management, Manulife places the highest priority on the following risk management objectives:

- To safeguard the commitments and expectations we have established with our shareholders, customers and creditors;
- To prudently and effectively deploy the capital invested in the Company by our shareholders with appropriate risk/return profiles;
- To protect and/or enhance the Company's reputation and brand; and
- To maintain the Company's targeted financial strength rating.

The Company's risk appetite defines the tolerance levels for the total Company level, and various types of risk that the Company is willing to accept. It is a key part of our strategic planning and operational execution. The following statements provide guideposts for risk taking at Manulife:

- Manulife accepts a total level of risk that provides a very high level of confidence of meeting customer obligations while targeting an acceptable overall return to shareholders over time;
- The Company targets a credit rating amongst the strongest of its global peers;
- Manulife values customer-focused innovation and encourages prudent initiatives intended to increase competitive advantage;
- Capital market risks are acceptable when they are managed within specific risk limits and tolerances;
- The Company believes a balanced investment portfolio reduces overall risk and enhances returns; therefore it accepts credit and alternative long-duration asset-related risks;
- The Company pursues insurance risks that add customer and shareholder value where we have competence to assess and monitor them, and for which we receive appropriate compensation;
- Manulife accepts that operational risks are an inherent part of our business but will protect its business and customers' assets through cost-effective operational risk mitigation; and
- Manulife expects its officers and employees to act in accordance with our values, ethics and standards; and to preserve and enhance our brand and reputation.

Risk tolerances and limits are established for risks within our risk classification framework that are inherent in our strategies in order to define the types and amount of risk the Company will assume. Risk tolerance levels are set for risks deemed to be most significant to the Company and are established in relation to economic capital, earnings at risk and regulatory capital required. The purpose of risk limits is to cascade the total Company risk appetite to a level that can be effectively managed. Manulife establishes standalone risk limits for risk categories to avoid excessive concentration in any individual risk category and manage the overall risk profile of the organization.

**Risk Identification, Measurement and Assessment**

We have a common approach and process to identify, measure and assess the risks we assume. We evaluate all potential new business initiatives, acquisitions, product offerings, reinsurance arrangements, and investment and financing transactions on a comparable risk-adjusted basis. Divisions, business units and functional groups are responsible for identifying and assessing key and emerging risks on an ongoing basis. A standard inventory of risks is used in all aspects of risk identification, measurement and assessment, and monitoring and reporting.

Risk exposures are evaluated using a variety of risk measures, with certain measures used across all risk categories, while others apply only to some risks or a single risk type. Risk measurement includes: key risk indicators; stress tests, including sensitivity tests and scenario impact analyses; and stochastic scenario modeling. Qualitative risk assessments are performed for those risk types that cannot be reliably quantified.

We perform a variety of stress tests on earnings, regulatory capital ratios, economic capital, earnings at risk and liquidity that consider significant, but plausible events. We also perform other integrated, complex scenario tests to assess key risks and the interaction of these risks.

Economic capital measures the amount of capital required to meet obligations with a high and pre-defined confidence level. Our earnings at risk metric measures the potential variance from quarterly expected earnings at a particular confidence level. Economic capital and earnings at risk are both determined using internal models and measure enterprise-wide risks and are allocated by risk type and business. Economic capital and earnings at risk provide measures of enterprise-wide risk that can be aggregated and compared across business activities and risk types.

### Risk Monitoring and Reporting

Under the direction of the CRO, GRM oversees a formal process for monitoring and reporting on all significant risks at the Group level. Risk exposures are also discussed at various risk oversight committees, along with any exceptions or proposed remedial actions, as required.

On a quarterly basis, the ERC, Board Risk Committee and Board of Directors review risk reports that present an overview of our overall risk profile and exposures across our principal risks. The reports incorporate both quantitative risk exposure measures and sensitivities, and qualitative risk assessments. The reports also highlight key risk management activities and facilitate monitoring compliance with key risk policy limits.

Our Chief Actuary presents the results of the Dynamic Capital Adequacy Test to the Board of Directors annually. Our Chief Auditor reports the results of internal audits of risk controls and risk management programs to the Audit Committee semi-annually. Management reviews the implementation of key risk management strategies, and their effectiveness, with the Board Risk Committee annually.

### Risk Control and Mitigation

Risk control activities are in place throughout the Company to mitigate risks within established risk limits. We believe our controls, which include policies, procedures, systems and processes, are appropriate and commensurate with the key risks faced at all levels across the Company. Such controls are an integral part of day to day activity, business management and decision making.

GRM establishes and oversees formal review and approval processes, involving independent individuals, groups or risk oversight committees, for product offerings, insurance underwriting, reinsurance, investment activities and other material business activities, based on the nature, size and complexity of the risk taking activity involved. Authorities for assuming risk at the transaction level are delegated to specific individuals based on their skill, knowledge and experience.

Risk mitigation activities, such as product and investment portfolio management, hedging, reinsurance and insurance protection are used to assist in managing our aggregate risk to within our risk appetite. Internal controls within the business units and Group functions mitigate our exposure to operational risks.

The following sections describe the key risks and associated risk management strategies for each of our broad risk categories: strategic, market, liquidity, credit, insurance and operational.

## Strategic Risk

***Strategic risk is the risk of loss resulting from the inability to adequately plan or implement an appropriate business strategy, or to adapt to change in the external business, political or regulatory environment.***

### Key Risk Factor Overview

We operate in highly competitive markets and compete for customers with both insurance and non-insurance financial services companies. Customer loyalty and retention, and access to distributors, are important to the Company's success and are influenced by many factors, including our product features, service levels, prices, and our financial strength ratings and reputation. Erosion of our corporate image by adverse publicity, as a result of our business practices or those of our employees, representatives and business partners, may cause damage to our franchise value.

External business, economic, political, tax, legal and regulatory environments and changes to accounting or actuarial reserving standards can significantly impact the types, pricing and attractiveness of the products and services we offer. The economic environment may remain volatile and our regulatory environment, particularly in Canada, will continue to evolve, potentially with higher capital requirements which would materially impact our competitiveness. Further, the attractiveness of our product offerings relative to our competitors will be influenced by competitor actions, as well as our own, and the requirements of the applicable regulatory regimes. For these and other reasons, there is no certainty that we will be successful in implementing our business strategies or that these strategies will achieve the objectives we target.

## Risk Management Strategy

The CEO and Executive Committee establish and oversee execution of business strategies and have accountability to identify and manage the risks embedded in these strategies. They are supported by a number of processes:

- Strategic business, risk and capital planning that is reviewed with the Board of Directors;
- Detailed strategic and business planning that is executed by divisional management and is reviewed by the CEO, the Chief Operating Officer ("COO"), the Group Chief Financial Officer ("CFO"), the CRO, and other members of the Executive Committee;
- Quarterly operational performance and risk reviews of all key businesses with the CEO and annual reviews with the Board of Directors;
- Risk-based capital attribution and allocation designed to encourage a consistent decision-making framework across the organization; and
- Review and approval of acquisitions and divestitures by the CEO and, where appropriate, the Board of Directors.

The CEO and Executive Committee are ultimately responsible for our reputation; however, our employees and representatives are responsible for conducting their business activities in a manner that upholds our reputation. This responsibility is reinforced by:

- An enterprise-wide reputation risk policy that specifies the oversight responsibilities of the Board of Directors and the responsibilities of executive management;
- Communication to and education of all directors, officers, employees and representatives, including our Code of Business Conduct and Ethics;
- Application of a set of guiding principles in conducting all our business activities, designed to protect and enhance our reputation; and
- Reputation risk assessments considered as part of business strategy development and execution.

We regularly review and adapt our business strategies and plans in consideration of changes in the external business, economic, political, and regulatory environments in which we operate. Changes in actuarial reserving standards and changes in the cost of hedging may also cause us to review our business strategies and plans. Key elements of our business strategy include diversifying our business mix, accelerating growth of those products that have a favourable risk/return profile and better potential outcomes under a range of economic and policyholder behaviour scenarios, and reducing or withdrawing from products with unattractive risk profiles. Our strategy also incorporates a plan to continue to mitigate our in-force public equity and interest rate risks. Depending upon market conditions, these actions could result in costs which might depress income. We have designed our business plans and strategies to align with our risk appetite, capital, and financial performance objectives.

The following is a further description of key strategic risk factors.

### General Macro-Economic Risk Factors

Under the Canadian insurance accounting and regulatory capital regimes, the impact of market conditions is largely reflected in our results on a real-time or near real-time basis. Weak or worsening economic conditions could result in material charges to net income attributed to shareholders and reductions in our capital position, notwithstanding our improved risk profile and strong underlying regulatory capital position.

The current macro environment, including low interest rates and declining oil and gas prices, produces headwinds for 2015 earnings. Lower interest rates may reduce new business margins, reduce the income reported in our Corporate and Other segment and reduce the amount of provisions for adverse deviation released into earnings each period. We may incur investment-related experience charges if oil and gas prices persist at current levels or decline further.

In 2012, we set objectives of $4 billion in core earnings and core ROE of 13% in 2016[19] based on our macro-economic and other assumptions.

Risk factors that may result in an inability to achieve our objectives include the following:

- Actions taken by management to bolster capital and further reduce the Company's risk profile and strengthen capital could reduce future earnings.
- A period of flat equity markets would represent underperformance relative to our long-term valuation assumption and would negatively impact earnings. In addition, as outlined below, there can be no assurance that our dynamic hedging strategy will fully offset the risks arising from the variable annuities being hedged. The publicly traded equity performance risk measures outlined below show the potential impact on net income attributed to shareholders resulting from an immediate 10, 20 and 30% change in market values of publicly traded equities followed by a return to the expected level of growth assumed in the valuation of policy liabilities. Expected long-term annual market growth assumptions for public equities pre-dividends for key markets are based on long-term historical observed experience. In the stochastic valuations of our segregated fund guarantee business, those rates inclusive of dividends are 9.6% per annum in Canada, 9.6% per annum in the U.S., 6.2% per annum in Japan, and vary between 7.8% and 9.85% per annum for European equity funds. The calibration of the economic scenario generators that are used to value segregated fund guarantee business complies with current Canadian Actuarial Standards of Practice for the valuation of these products. Implicit margins are determined through stochastic valuation processes which results in lower net yields used to determine policy liabilities. Assumptions used for public equities backing liabilities are also developed based on historical experience but are

[19] See "Caution regarding forward-looking statements" above.

constrained by different Canadian Actuarial Standards of Practice and differ slightly from those used in stochastic valuation. Alternative asset return assumptions vary based on asset class but are largely consistent, after application of valuation margins and differences in taxation, with returns assumed for public equities.

- A prolonged low interest rate environment may result in charges related to lower fixed income reinvestment assumptions and an increase in new business strain until products are repositioned for the lower interest rate environment.
  - The difference between the current investable returns and the returns used in pricing new business are generally capitalized when new business is written. Lower interest rates result in higher new business strain until products are re-priced or interest rates increase.
  - Fixed income reinvestment rates other than the ultimate reinvestment rate are based on current market rates. The net income sensitivity to changes in current rates is outlined in the section "Interest Rate and Spread Risk" below.
  - A prolonged low interest rate environment may result in the Actuarial Standard Board lowering the promulgated URR.
  - Lower interest rates would also reduce expected earnings on in-force policies and thus core earnings, and may increase new business strain until products are repositioned for the lower interest rate environment.
- Other potential consequences of weak economic conditions include:
  - Low interest rates could negatively impact sales.
  - Lower sales volumes could put increased pressure on our ability to maintain operating expense levels within the levels provided for in the policy liability valuation and could result in lower future profit.
  - Lower risk free rates tend to increase the cost of hedging and as a result the offering of guarantees could become uneconomic.
  - The reinvestment of cash flows into low yielding AFS bonds could result in lower future earnings on surplus.
  - A lower interest rate environment could be correlated with other macro-economic factors including unfavourable economic growth and lower returns on other asset classes.
  - A weak or declining economic environment could increase the value of guarantees associated with variable annuities, or embedded guarantees in other annuity or insurance products, and could result in future adverse policyholder behaviour experience.
  - Lower interest rates could lead to lower mean bond parameters used for the stochastic valuation of segregated fund guarantees, resulting in higher policy liabilities.
  - Lower interest rates could contribute to potential impairments of goodwill as a result of their impact on the business as described above.

**Regulatory and Capital Risk Factors**

The Company is subject to a wide variety of laws and regulations that vary by jurisdiction and are intended to protect policyholders and beneficiaries first and foremost, rather than investors. Internationally, insurance authorities and regulators are reviewing their capital requirements and implementing or considering changes aimed at strengthening risk management and the capitalization of financial institutions. Changes in regulatory capital guidelines for banks under the Basel Accord, initiatives by the International Association of Insurance Supervisors ("IAIS") to create Basic Capital Requirements, a special Higher Loss Absorbency capital surcharge on select activities, and International Capital Standards may also have implications for Canadian insurance companies. In addition, legal and regulatory capital could be impacted by changes to accounting standards being proposed by the International Accounting Standards Board ("IASB") with respect to insurance contracts, financial instruments, and hedge accounting.

The potential changes to regulatory capital and accounting standards could have a material adverse effect on the Company's Consolidated Financial Statements and regulatory capital both on transition and going forward. The impact of these changes remains uncertain but could lead to increased capital needs going forward. Changes in jurisdictional regulatory frameworks could also limit the ability of the insurance subsidiaries to pay dividends or make distributions and could have a significantly adverse effect on MFC's capital mobility, including its ability to pay dividends to shareholders, buy back its shares and service its debt. We may be required to raise additional capital, which could be dilutive to existing shareholders, or limit the new business we write, or pursue actions that would support capital needs but adversely impact our subsequent earnings potential. In addition, the timing and outcome of these initiatives could have a significantly adverse impact on our competitive position relative to that of other Canadian and international financial institutions with which we compete for business and capital. Some recent examples of regulatory and professional standard developments which could impact our earnings and/or capital position are provided below:

- The IASB issued an exposure draft of a new accounting standard for insurance contracts in June 2013. As drafted, the standard could create material unwarranted volatility in our financial results and capital position and could result in lower discount rates used for the determination of actuarial liabilities. The final standards are not expected to be effective until at least 2018 and it is not known if changes would be made to regulatory capital to adjust for the unwarranted volatility.
- The Office of the Superintendent of Financial Institutions ("OSFI") is developing a methodology for evaluating standalone capital adequacy for Canadian operating life insurance companies, such as MLI, and considering updates to its regulatory guidance and disclosures for non-operating insurance companies acting as holding companies, such as MFC. In addition, OSFI is developing a refresh of the regulatory capital framework in Canada intended to be finalized in 2016 with implementation in 2019.
- The National Association of Insurance Companies has been reviewing reserving and capital methodologies as well as the overall risk management framework. These reviews will affect U.S. life insurers, including John Hancock, and could lead to increased reserving and/or capital requirements for our business in the United States. In the fall of 2013, the IAIS committed to the completion of several capital initiatives in the next few years that will apply to select global insurance groups, including Basic Capital Requirements to be introduced in 2015, and a special Higher Loss Absorbency capital surcharge on select activities for 2016. The most relevant for MFC is the IAIS work to develop global Insurance Capital Standards which will take place in 2015 and 2016 and apply to all large internationally active insurance groups. It is not yet known how the proposals will affect capital requirements and the competitive position of the Company.

- The Company currently has reinsurance agreements, including agreements with third parties and affiliate reinsurance agreements. In 2014 regulators in the U.S. established guidelines for new affiliate transactions on a go forward basis. However, regulators in the U.S. and elsewhere continue to review and examine the use of reinsurance in general. In particular, the New York State Department of Financial Services has expressed concerns about captive reinsurance arrangements with off-shore affiliates or so-called "shadow insurance". Class action lawsuits have been commenced in the U.S. against certain life insurance companies, with the plaintiffs claiming the defendants misrepresented their reserves and financial condition as a result of the reinsurance of risks to affiliates. The Company continues to monitor developments in this area and we cannot predict what, if any, changes may result from this scrutiny. Changes to the regulatory treatment of affiliate and third party reinsurance arrangements could potentially have an adverse effect on the financial results, liquidity and capital position of some of our subsidiaries and result in increased collateral requirements, and/or limit our use of affiliate reinsurance companies.
- The Canadian Institute of Actuaries is reviewing the promulgation of prescribed Mortality Improvement rates referenced in the Canadian Actuarial Standards of Practice for the valuation of insurance contract liabilities. To the extent a new promulgation is published it will apply to the determination of actuarial liabilities; it may lead to an increase in actuarial liabilities and a reduction in net income attributed to shareholders.

**The Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank")**

Dodd-Frank Title VII in the U.S. establishes a new framework for regulation of over-the-counter ("OTC") derivatives which affects activities of the Company which use derivatives for various purposes, including hedging equity market, interest rate and foreign currency exposures. Regulations promulgated by the U.S. Commodities Futures Trading Commission and the U.S. Securities and Exchange Commission under Dodd-Frank (since June 10, 2013) requires certain types of OTC derivative transactions to be executed through a centralized exchange or regulated facility and be cleared through a regulated clearinghouse. These new rules cause additional costs, including new capital and funding requirements, and additional regulation of the Company.

Derivative transactions executed through exchanges or regulated facilities attract incremental collateral requirements in the form of initial margin, and require variation margin to be cash settled on a daily basis which increases liquidity risk for the Company. The increase in margin requirements (relative to bilateral agreements), combined with a more restricted list of securities that qualify as eligible collateral, requires us to hold larger positions in cash and treasuries, which could reduce net income attributed to shareholders. Conversely, transactions executed through exchanges largely eliminate OTC counterparty credit risk but increase our exposure to the risk of an exchange or clearinghouse defaulting, and increased capital or margin requirements imposed on our OTC derivative counterparties could reduce our exposure in the event of a counterparties' default.

In-force OTC derivative transactions are grandfathered and will migrate to being cleared through exchanges over time, or the Company may elect to accelerate the migration. As such, this does not become a significant risk for Manulife until a large portion of our derivatives have transitioned to clearing houses and market conditions adverse to liquidity (material increases in interest rates and/ or equity markets) have been experienced.

Similar regulations in other jurisdictions in which we operate are expected to become effective over the next few years. We cannot predict the effect of the legislation on our hedging costs, our hedging strategy or its implementation, or whether Dodd-Frank and similar regulations in other jurisdictions will lead to an increase or decrease in, or change in, composition of the risks we hedge.

**International Financial Reporting Standards**

The IASB issued an exposure draft on a new accounting standard for insurance contracts in June 2013. The proposal will have a material impact on our financial results if implemented in the current form. The Company's capital position and income for accounting purposes would be highly correlated to prevailing market conditions, resulting in massive unwarranted volatility that will make it difficult for investors, regulators, and other authorities to distinguish between the performance of the underlying business and meaningless short-term market noise. This could also result in life insurers exiting the long duration contracts business and pulling out of alternative long-duration investments ultimately reducing the stability and long-term view of the insurance business.

The comment period on the exposure draft ended on October 25, 2013 and the final standard is not expected to be effective until at least 2019. We, along with other international companies in the industry, provided feedback on the significant issues we see with the IASB exposure draft. In addition, Manulife, MetLife Inc., New York Life and Prudential Financial Inc. performed comprehensive field testing of the proposal within the exposure draft response period. The results of these field tests supported the concerns raised with the IASB.

Additionally, for IFRS, other jurisdictions may not adopt the standard as issued or on the same timeline as published by the IASB, and there is a possibility that Canada will be the first to adopt the standard. Adopting the standard in Canada before it is adopted elsewhere would increase our cost of capital compared to global competitors and the banking sector in Canada.

The insurance industry in Canada has support from OSFI and the federal government with respect to the potential impact of these proposals on Canadian insurance companies. The industry is urging policymakers to ensure that any future accounting and capital proposals appropriately consider the underlying business model of a life insurance company and, in particular, the implications for long-duration guaranteed products which are much more prevalent in North America than in Europe.

**Entities within the MFC Group are interconnected which may make separation difficult**

Linkages between MFC and its subsidiaries may make it difficult to dispose of or separate a subsidiary within the group by way of spin-off or similar transaction. See the Company's Annual Information Form – "Risk Factors – Additional risks – Entities within the

MFC Group are interconnected which may make separation difficult." In addition to the possible negative consequences outlined in such disclosure, other negative consequences could include a requirement for significant capital injections, and increased net income and capital sensitivities of MFC and its remaining subsidiaries to market declines.

**Ratings Risk Factors**

The Company has received security ratings from approved rating organizations on certain of its long-term debt, liabilities for preferred shares and capital instruments and preferred shares qualifying as equity. In addition, the Company's primary insurance operating subsidiaries have received financial strength/claims paying ability ratings. Our ratings could be adversely affected if, in the view of the rating organizations, there is deterioration in our financial flexibility, operating performance, or risk profile. Adverse ratings changes could have a negative impact on future financial results.

**Reputation Risk Factors**

The Company's reputation is one of our most valuable assets. Our corporate image may be eroded by adverse publicity as a result of our business practices or those of our employees, representatives, and business partners, potentially causing damage to our franchise value. A loss of reputation is often a consequence of some other risk control failure whether associated with complex financial transactions or relatively routine operational activities. As such, reputation risk cannot be managed in isolation from other risks.

**Risk Factors and IFRS 7 Disclosure**

The shaded text and tables in the following sections of this MD&A represent our disclosure on market and liquidity risk in accordance with IFRS 7, "Financial Instruments – Disclosures," and include a discussion on how we measure risk and our objectives, policies and methodologies for managing these risks. Therefore, the following shaded text and tables represent an integral part of our audited annual Consolidated Financial Statements for the years ended December 31, 2014 and December 31, 2013. The fact that certain text and tables are considered an integral part of the Consolidated Financial Statements does not imply that the disclosures are of any greater importance than the sections not part of the disclosure. Accordingly, the "Risk Management and Risk Factors" disclosure should be read in its entirety.

## Market Risk

***Market risk is the risk of loss resulting from market price volatility, interest rate change, credit and swap spread changes, and from adverse foreign currency rate movements. Market price volatility primarily relates to changes in prices of publicly traded equities and alternative long-duration assets.***

### Market Risk Management Strategy Overview

Our overall strategy to manage our market risks incorporates several component strategies, each targeted to manage one or more of the market risks arising from our businesses. At an enterprise level, these strategies are designed to manage our aggregate exposures to market risks against economic capital, regulatory required capital and earnings at risk limits.

The following table outlines our key market risks and identifies the risk management strategies which contribute to managing these risks.

| Risk Management strategy | Key Market Risk | | | |
|---|---|---|---|---|
| | Publicly Traded Equity Performance Risk | Interest Rate and Spread Risk | Alternative Long-Duration Asset Performance Risk | Foreign Exchange Risk |
| Product design and pricing | X | X | X | X |
| Variable annuity guarantee dynamic hedging | X | X | | X |
| Macro equity risk hedging | X | | | X |
| Asset liability management | X | X | X | X |
| Foreign exchange management | | | | X |

To reduce publicly traded equity performance risk, we primarily use a variable annuity guarantee dynamic hedging strategy which is complemented by a general macro equity risk hedging strategy. Our strategies employed for variable annuity guarantee dynamic hedging and macro equity risk hedging expose the Company to additional risks. These risks are outlined in the "Publicly Traded Equity Performance Risk" section below.

In general, to reduce interest rate risk, we lengthen the duration of our fixed income investments in both our liability and surplus segments by investing in longer duration bonds, and by executing lengthening interest rate swaps. During 2014, the sensitivity of net income attributed to shareholders to declines in interest rates decreased. The decrease in sensitivity to parallel interest rates changes was primarily attributable to the implementation of the revised Canadian Actuarial Standards of Practice related to economic reinvestment assumptions and resulting changes to the methodology used to develop the risk free interest rate scenarios used in our policy liability calculations.

Changes in the market value of fixed income assets held in our surplus segment may provide a natural economic offset to the interest rate risk arising from our product liabilities. In order for there to also be an accounting offset, the Company would need to realize a portion of the AFS fixed income unrealized gains or losses. While we have a history of being able to realize a portion of these gains or losses, it is not certain that we would crystallize any of the unrealized gains or losses available.

## Key Risk Factors

### Publicly Traded Equity Performance Risk

Publicly traded equity performance risk arises from a variety of sources, including guarantees associated with certain variable annuity and segregated fund products, asset based fees, and investments in publicly traded equities supporting both our general fund products and our surplus segment.

Our most significant source of equity risk arises from variable annuity and segregated funds with guarantees, where the guarantees are linked to the performance of the underlying funds. Guaranteed benefits are contingent and only payable upon death, maturity, permitted withdrawal or annuitization. If equity markets decline or even if they increase by an amount lower than that assumed in our actuarial valuation. Additional liabilities may need to be established to cover the contingent liabilities, resulting in a reduction in shareholders' net income and regulatory capital ratios. Further, if equity markets do not recover to the amount of the guarantees, by the dates the liabilities are due, the accrued liabilities will need to be paid out in cash. In addition, a sustained flat or a decline in public equity markets would likely reduce asset based fee revenues related to variable annuities and segregated funds with guarantees and related to other wealth and insurance products.

Where publicly traded equity investments are used to support policy liabilities, the policy valuation incorporates projected investment returns on these assets. If actual returns are lower than the expected returns, the Company's policy liabilities will increase, reducing net income attributed to shareholders.

Further, for products where the investment strategy applied to future cash flows in the policy valuation includes investing a specified portion of future cash flows in publicly traded equities, a decline in the value of publicly traded equities relative to other assets could require us to change the investment mix assumed for future cash flows, which may increase policy liabilities and reduce net income attributed to shareholders. In addition, a reduction in the outlook for expected future returns for publicly traded equities, which could result from a fundamental change in future expected economic growth, would increase policy liabilities and reduce net income attributed to shareholders. Furthermore, to the extent publicly traded equities are held as AFS, other than temporary impairments that arise will reduce net income attributed to shareholders.

Expected long-term annual market growth assumptions for public equities pre-dividends for key markets are based on long-term historical observed experience. In the stochastic valuation of our segregated fund guarantee business, those rates inclusive of dividends are 9.6% per annum in Canada, 9.6% per annum in the U.S., 6.2% per annum in Japan and vary between 7.8% and 9.85% per annum for European equity funds. The calibration of the economic scenario generators that are used to value segregated fund guarantee business complies with current Canadian Actuarial Standards of Practice for the valuation of these products. Implicit margins are determined through stochastic valuation processes which results in lower net yields used to determine policy liabilities. Assumptions used for public equities backing liabilities are also developed based on historical experience but are constrained by different Canadian Actuarial Standards of Practice and differ slightly than those used in stochastic valuations. Alternative asset return assumptions vary based on asset class but are largely consistent, after application of valuation margins and differences in taxation, with returns assumed for public equities.

### Interest Rate and Spread Risk

Interest rate and spread risk arises from general fund guaranteed benefit products, general fund adjustable benefit products with minimum rate guarantees, general fund products with guaranteed surrender values, segregated fund products with minimum benefit guarantees and from surplus fixed income investments.

Interest rate and spread risk arises within the general fund primarily due to the uncertainty of future returns on investments to be made as assets mature and as recurring premiums are received and invested or reinvested to support longer dated liabilities. Interest rate risk also arises due to minimum rate guarantees and guaranteed surrender values on products where investment returns are generally passed through to policyholders.

A general decline in interest rates, without a change in corporate bond spreads and swap spreads, will reduce the assumed yield on future investments used in the valuation of policy liabilities, resulting in an increase in policy liabilities and a reduction in net income attributed to shareholders. In addition, changes in interest rates could change the reinvestment scenarios used in the calculation of our actuarial liabilities. The reinvestment scenario changes tend to amplify the negative effects of a decrease in interest rates, and dampen the positive effects of interest rate increases. A general increase in interest rates, without a change in corporate bond spreads and swap spreads, will result in a decrease in policy liabilities and an increase in net income attributed to shareholders. In addition, decreases in corporate bond spreads or increases in swap spreads will result in an increase in policy liabilities and a reduction in net income attributed to shareholders, while an increase in corporate bond spreads or a decrease in swap spreads will have the opposite impact. The impact of changes in interest rates and in spreads may be partially offset by changes to credited rates on adjustable products that pass through investment returns to policyholders.

For segregated fund and variable annuity products, a sustained increase in interest rate volatility or a decline in interest rates would also likely increase the costs of hedging the benefit guarantees provided.

### Alternative Long-Duration Asset Performance Risk

Alternative long-duration asset performance risk arises from general fund investments in commercial real estate, timber properties, agricultural properties, infrastructure, oil and gas properties, and private equities.

Where these assets are used to support policy liabilities, the policy valuation incorporates projected investment returns on these assets. Alternative long-duration asset assumptions vary by asset class and generally have a similar impact on policy liabilities as publicly traded equities would. If actual returns are lower than the expected returns, the Company's policy liabilities will increase, reducing net income attributed to shareholders. In addition, a reduction in the outlook for expected future returns for alternative long-duration assets, which could result from a fundamental change in future expected economic growth, would increase policy liabilities and reduce net income attributed to shareholders.

The value of oil and gas assets could be negatively impacted by a number of factors including, but not limited to changes in energy prices, production declines, adverse operating results, the impact of weather conditions on seasonal demand, ability to execute on capital programs, incorrect assessments of the value of acquisitions, uncertainties associated with estimating oil and natural gas reserves, and difficult economic conditions. Changes in government regulation of the oil and gas industry, including environmental regulation and changes in the royalty rates resulting from provincial royalty reviews, could also adversely affect the value of our oil and gas investments. The negative impact of changes in these factors can take time to be fully reflected in the valuations of these investments, especially if the change is large and rapid. It can take time for market participants to adjust their forecasts and better understand the potential medium to long-term impact of the changes. As a result, valuation changes in any given period may reflect the delayed impact of events that occurred in prior periods.

#### Foreign Exchange Risk

Our financial results are reported in Canadian dollars. A substantial portion of our business is transacted in currencies other than Canadian dollars, mainly U.S. dollars, Hong Kong dollars and Japanese yen. If the Canadian dollar strengthens relative to these currencies, reported earnings would decline and our reported shareholders' equity would decline. Further, to the extent that the resultant change in available capital is not offset by a change in required capital, our regulatory capital ratios would be reduced. A weakening of the Canadian dollar against the foreign currencies in which we do business would have the opposite effect, and would increase reported Canadian dollar earnings and shareholders' equity, and would potentially increase our regulatory capital ratios.

### Market Risk Management Strategies

#### Product Design and Pricing Strategy

Our policies, standards and standards of practice with respect to product design and pricing are designed with the objective of aligning our product offerings with our risk taking philosophy and risk appetite, and in particular, that incremental risk generated from new sales aligns with our strategic risk objectives and risk limits. The specific design features of our product offerings, including level of benefit guarantees, policyholder options, fund offerings and availability restrictions as well as our associated investment strategies, help to mitigate the level of underlying risk. We regularly review and modify all key features within our product offerings, including premiums and fee charges with a goal of meeting profit targets and staying within risk limits. Certain of our general fund adjustable benefit products have minimum rate guarantees. The rate guarantees for any particular policy are set at the time the policy is issued and governed by insurance regulation in each jurisdiction where the products are sold. The contractual provisions allow crediting rates to be re-set at pre-established intervals subject to the established minimum crediting rate guarantees. The Company may partially mitigate the interest rate exposure by setting new rates on new business and by adjusting rates on in-force business where permitted. In addition, the Company partially mitigates this interest rate risk through its asset liability management process, product design elements, and crediting rate strategies. New product initiatives, new business reinsurance arrangements and material insurance underwriting initiatives must be reviewed and approved by the CRO or key individuals within the global risk management group.

#### Hedging Strategies for Variable Annuity and Other Equity Risks

The Company's exposure to movement in public equity market values primarily arises from variable annuity guarantees and to a smaller extent from asset-based fees and general fund public equity holdings.

Dynamic hedging is the primary hedging strategy for variable annuity market risks. Dynamic hedging is employed for new variable annuity guarantees business when written, or as soon as practical thereafter.

Public equity risk arising from other sources (not dynamically hedged) is managed through our macro equity risk hedging strategy. Interest rate risk arising from variable annuity business not dynamically hedged is managed within our asset liability management strategy.

#### Dynamic Hedging

The variable annuity dynamic hedging strategy is designed to hedge the sensitivity of variable annuity guarantee policy liabilities and available capital to fund performance (both public equity and bond funds) and interest rate movements. The objective of the dynamic hedging strategy is to offset, as closely as possible, the change in the economic value of guarantees with the profit and loss from our hedge asset portfolio. The economic value of guarantees moves in close tandem, but not exactly, with our variable annuity guarantee policy liabilities, as it reflects best estimate liabilities and does not include any liability provisions for adverse deviations.

Our current hedging approach is to short exchange-traded equity index and government bond futures and execute currency futures and lengthening interest rate swaps to hedge sensitivity of policy liabilities to fund performance and interest rate movements arising from variable annuity guarantees. We dynamically rebalance these hedge instruments as market conditions change, in order to maintain the hedged position within established limits. Other derivative instruments (such as equity options) are also utilized and we may consider the use of additional hedge instruments opportunistically in the future.

Our variable annuity guarantee dynamic hedging strategy is not designed to completely offset the sensitivity of policy liabilities to all risks associated with the guarantees embedded in these products. The profit (loss) on the hedge instruments will not completely offset the underlying losses (gains) related to the guarantee liabilities hedged because:

- Policyholder behaviour and mortality experience are not hedged;
- Provisions for adverse deviation in the policy liabilities are not hedged;
- A portion of interest rate risk is not hedged;
- Credit spreads widen and actions are not taken to adjust accordingly;
- Fund performance on a small portion of the underlying funds is not hedged due to lack of availability of effective exchange-traded hedge instruments;
- Performance of the underlying funds hedged may differ from the performance of the corresponding hedge instruments;
- Correlations between interest rates and equity markets could lead to unfavourable material impacts;
- Unfavourable hedge rebalancing costs can be incurred during periods of high volatility from equity markets, bond markets and/or interest rates. The impact is magnified when these impacts occur concurrently; and
- Not all other risks are hedged.

The risks related to the variable annuity dynamic hedging strategy are described below within "Risks Related to Dynamic and Macro Hedging Strategies".

**Macro Equity Risk Hedging**

The objective of the macro equity risk hedging program is to maintain our overall earnings sensitivity to public equity market movements within our Board approved risk appetite limits. The macro hedging program thus hedges earnings sensitivity due to movements in public equity markets arising from all sources (outside of dynamically hedged exposures). Sources of equity market sensitivity addressed by the macro equity hedging include and are not limited to:

- Residual equity and currency exposure from variable annuity guarantees not dynamically hedged;
- General fund equity holdings backing non-participating liabilities;
- Variable life insurance;
- Unhedged provisions for adverse deviation related to variable annuity guarantees dynamically hedged; and
- Variable annuity fees not associated with guarantees and fees on segregated funds without guarantees, mutual funds and institutional assets managed.

We currently execute our macro equity risk hedging strategy by shorting equity futures and executing currency futures, and rolling them over at maturity. We may consider the use of alternative long-duration instruments opportunistically in the future.

**Risks Related to Dynamic and Macro Hedging Strategies**

Our hedging strategies rely on the execution of derivative transactions in a timely manner. Therefore, hedging costs and the effectiveness of the strategy may be negatively impacted if markets for these instruments become illiquid. The Company is subject to the risk of increased funding and collateral demands which may become significant as equity markets increase.

The Company is also subject to counterparty risks arising from the derivative instruments and to the risk of increased funding and collateral demands which may become significant as equity markets and interest rates increase. The strategies are highly dependent on complex systems and mathematical models that are subject to error and rely on long-term forward-looking assumptions that may prove inaccurate, and which rely on sophisticated infrastructure and personnel which may fail or be unavailable at critical times. Due to the complexity of the strategies there may be additional, unidentified risks that may negatively impact our business and future financial results.

Under certain market conditions, which include a sustained increase in realized equity and interest rate volatilities, a decline in interest rates, or an increase in the correlation between equity returns and interest rate declines, the costs of hedging the benefit guarantees provided in variable annuities may increase or become uneconomic. In addition, there can be no assurance that our dynamic hedging strategy will fully offset the risks arising from the variable annuities being hedged.

Policy liabilities and MCCSR required capital for variable annuity guarantees are determined using long-term forward-looking estimates of volatilities. These long-term forward-looking volatilities assumed for policy liabilities and required capital meet the Canadian Institute of Actuaries and OSFI calibration standards. To the extent that realized equity or interest rate volatilities in any quarter exceed the assumed long-term volatilities, or correlations between interest rate changes and equity returns are higher, there is a risk that rebalancing will be greater and more frequent, resulting in higher hedging costs.

The level of guarantee claims ultimately paid will be impacted by policyholder longevity and policyholder activity including the timing and amount of withdrawals, lapses and fund transfers. The sensitivity of liability values to equity market and interest rate movements that we hedge are based on long-term expectations for longevity and policyholder activity, since the impact of actual longevity and policyholder experience variances cannot be hedged using capital markets instruments.

**Asset Liability Management Strategy**

Our asset liability management strategy is designed to help ensure that the market risks embedded in our assets and liabilities held in the Company's general fund are effectively managed and that risk exposures arising from these assets and liabilities are maintained below targeted levels. The embedded market risks include risks related to the level and movement of interest rates and credit spreads, public equity market performance, alternative long-duration asset performance ("ALDA") and foreign exchange rate movements.

General fund product liabilities are segmented into groups with similar characteristics that are supported by specific asset segments. Each segment is managed to a target investment strategy appropriate for the premium and benefit pattern, policyholder options and guarantees, and crediting rate strategies of the products they support. Similar strategies are established for assets in the Company's surplus account. The strategies are set using portfolio analysis techniques intended to optimize returns, subject to considerations related to regulatory and economic capital requirements, and risk tolerances. They are designed to achieve broad diversification across asset classes and individual investment risks while being suitably aligned with the liabilities they support. The strategies encompass asset mix, quality rating, term profile, liquidity, currency and industry concentration targets.

Products which feature guaranteed liability cash flows (i.e., where the projected net flows are not materially dependent upon economic scenarios) are combined into a single asset segment by region, and managed to a target return investment strategy. The products backed by this asset segment include:

- Accumulation annuities (other than annuities with pass-through features), which are primarily short-to-medium-term obligations and offer interest rate guarantees for specified terms on single premiums. Withdrawals may or may not have market value adjustments. Payout annuities, which have no surrender options and include predictable and very long-dated obligations.
- Insurance products, with recurring premiums extending many years in the future, and which also include a significant component of very long-dated obligations.

The assets backing these long-dated benefits are managed to achieve a target return sufficient to support the obligations over their lifetime, subject to established risk tolerances, by investing in a basket of diversified ALDA with the balance invested in fixed income. Utilizing ALDA to partially support these products is intended to enhance long-term investment returns and reduce aggregate risk through diversification. The size of the target ALDA portfolio is dependent upon the size and term of each segment's liability obligations. Fixed income assets are managed to a benchmark developed to minimize interest rate risk against the residual liabilities, and to achieve target returns/spreads required to preserve long-term interest rate investment assumptions used in liability pricing.

For insurance and annuity products where significant pass through features exist, a total return strategy approach is used, generally combining fixed income and ALDA. ALDA may be included to enhance long-term investment returns and reduce aggregate risk through diversification. Target investment strategies are established using portfolio analysis techniques to optimize long-term investment returns while considering the risks related to embedded product guarantees and policyholder withdrawal options, the impact of regulatory and economic capital requirements and management tolerances with respect to short-term income volatility and long-term tail risk exposure. Shorter duration liabilities such as fixed deferred annuities do not incorporate ALDA in their target asset mixes.

In our general fund, we limit concentration risk associated with ALDA performance by investing in a diversified basket of assets including public and private equities, commercial real estate, infrastructure, timber, agricultural real estate, and oil and gas assets. We further diversify risk by managing publicly traded equities and ALDA investments against established limits, including for industry type and corporate connection, commercial real estate type and geography, and timber and agricultural property geography and crop type.

Authorities to manage our investment portfolios are delegated to investment professionals who manage to benchmarks derived from the target investment strategies established for each segment, including interest rate risk tolerances. Interest rate risk exposure measures are monitored and communicated to portfolio managers with frequencies ranging from daily to annually, depending on the type of liability. Asset portfolio rebalancing, accomplished using cash investments or derivatives, may occur at frequencies ranging from daily to monthly, depending on our established risk tolerances and the potential for changes in the profile of the assets and liabilities.

Our asset liability management strategy incorporates a wide variety of risk measurement, risk mitigation and risk management, and hedging processes. The liabilities and risks to which the Company is exposed, however, cannot be completely matched or hedged due to both limitations on instruments available in investment markets and uncertainty of policyholder experience and consequent liability cash flows.

### Foreign Exchange Risk Management Strategy

Our foreign exchange risk management strategy is designed to hedge the sensitivity of our regulatory capital ratios to movements in foreign exchange rates. In particular, the objective of the strategy is to offset within acceptable tolerance levels, changes in required capital with changes in available capital that result from movements in foreign exchange rates. These changes occur when assets and liabilities related to business conducted in currencies other than Canadian dollars are translated to Canadian dollars at period ending exchange rates.

Our policy is to generally match the currency of our assets with the currency of the liabilities they support, and similarly, to generally match the currency of the assets in our shareholders' equity account to the currency of our required capital. Where assets and liabilities are not matched, forward contracts and currency swaps are used to stabilize our capital ratios and our capital adequacy relative to economic capital, when foreign exchange rates change.

Risk exposure limits are measured in terms of potential changes in capital ratios due to foreign exchange rate movements, determined to represent a specified likelihood of occurrence based on internal models. We utilize a Value-at-Risk ("VaR") methodology quarterly to estimate the potential impact of currency mismatches on our capital ratios.

While our risk management strategy is designed to stabilize capital adequacy ratios, the sensitivity of reported shareholders' equity and income to foreign exchange rate changes is not hedged.

## Sensitivities and Risk Exposure Measures

### Variable Annuity and Segregated Fund Guarantees

Guarantees on variable products and segregated funds may include one or more of death, maturity, income and withdrawal guarantees. Variable annuity and segregated fund guarantees are contingent and only payable upon the occurrence of the relevant event, if fund values at that time are below guaranteed values. Depending on future equity market levels, liabilities on current in-force business would be due primarily in the period from 2015 to 2038.

We seek to mitigate a portion of the risks embedded in our retained (i.e. net of reinsurance) variable annuity and segregated fund guarantee business through the combination of our dynamic and macro hedging strategies (see "Publicly Traded Equity Performance Risk" above).

The table below shows selected information regarding the Company's variable annuity and segregated fund investment-related guarantees gross and net of reinsurance.

### Variable annuity and segregated fund guarantees, net of reinsurance

| | **2014** | | | 2013 | | |
|---|---|---|---|---|---|---|
| **As at December 31, (C$ millions)** | Guarantee value | Fund value | Amount at risk[4],[5] | Guarantee value | Fund value | Amount at risk[4],[5] |
| Guaranteed minimum income benefit[1] | **$ 6,014** | **$ 4,846** | **$ 1,203** | $ 6,194 | $ 5,161 | $ 1,109 |
| Guaranteed minimum withdrawal benefit | **66,950** | **64,016** | **4,570** | 66,189 | 63,849 | 4,120 |
| Guaranteed minimum accumulation benefit | **14,514** | **18,670** | **23** | 16,942 | 20,581 | 94 |
| Gross living benefits[2] | **$ 87,478** | **$ 87,532** | **$ 5,796** | $ 89,325 | $ 89,591 | $ 5,323 |
| Gross death benefits[3] | **12,178** | **11,036** | **1,312** | 12,490 | 11,230 | 1,413 |
| Total gross of reinsurance and hedging | **$ 99,656** | **$ 98,568** | **$ 7,108** | $ 101,815 | $ 100,821 | $ 6,736 |
| Living benefits reinsured | **$ 5,242** | **$ 4,249** | **$ 1,020** | $ 5,422 | $ 4,544 | $ 942 |
| Death benefits reinsured | **3,598** | **3,398** | **560** | 3,601 | 3,465 | 564 |
| Total reinsured | **$ 8,840** | **$ 7,647** | **$ 1,580** | $ 9,023 | $ 8,009 | $ 1,506 |
| **Total, net of reinsurance** | **$ 90,816** | **$ 90,921** | **$ 5,528** | $ 92,792 | $ 92,812 | $ 5,230 |

(1) Contracts with guaranteed long-term care benefits are included in this category.
(2) Where a policy includes both living and death benefits, the guarantee in excess of the living benefit is included in the death benefit category.
(3) Death benefits include stand-alone guarantees and guarantees in excess of living benefit guarantees where both death and living benefits are provided on a policy.
(4) Amount at risk (in-the-money amount) is the excess of guarantee values over fund values on all policies where the guarantee value exceeds the fund value. This amount is not currently payable. For guaranteed minimum death benefit, the amount at risk is defined as the current guaranteed minimum death benefit in excess of the current account balance. For guaranteed minimum income benefit, the amount at risk is defined as the excess of the current annuitization income base over the current account value. For all guarantees, the amount at risk is floored at zero at the single contract level.
(5) The amount at risk net of reinsurance at December 31, 2014 was $5,528 million (December 31, 2013 – $5,230 million) of which: US$3,616 million (December 31, 2013 – US$3,124 million) was on our U.S. business, $912 million (December 31, 2013 – $1,248 million) was on our Canadian business, US$99 million (December 31, 2013 – US$335 million) was on our Japan business and US$264 million (December 31, 2013 – US$285 million) was related to Asia (other than Japan) and our run-off reinsurance business.

The policy liabilities established for variable annuity and segregated fund guarantees were $4,862 million at December 31, 2014 (December 31, 2013 – $1,197 million). For non-dynamically hedged business, policy liabilities increased from $589 million at December 31, 2013 to $684 million at December 31, 2014. For the dynamically hedged business, the policy liabilities increased from $608 million at December 31, 2013 to $4,178 million at December 31, 2014.

The increase in the total policy liabilities for variable annuity and segregated fund guarantees since December 31, 2013 is mainly due to the decline in yield curves and, in the case of dynamically hedged business, is also due to the decrease in swap rates in North America.

### Investment categories for variable contracts with guarantees

Variable contracts with guarantees are invested, at the policyholder's discretion subject to contract limitations, in various fund types within the segregated fund accounts and other investments. The account balances by investment category are set out below.

**As at December 31,**
(C$ millions)

| **Investment category** | **2014** | 2013 |
|---|---|---|
| Equity funds | **$ 38,595** | $ 37,968 |
| Balanced funds | **57,778** | 59,198 |
| Bond funds | **10,674** | 10,418 |
| Money market funds | **1,957** | 2,255 |
| Other fixed interest rate investments | **1,770** | 1,601 |
| **Total** | **$ 110,774** | $ 111,440 |

## Caution Related to Sensitivities

In the sections that follow, we provide sensitivities and risk exposure measures for certain risks. These include sensitivities due to specific changes in market prices and interest rate levels projected using internal models as at a specific date, and are measured relative to a starting level reflecting the Company's assets and liabilities at that date and the actuarial factors, investment activity and investment returns assumed in the determination of policy liabilities. The risk exposures measure the impact of changing one factor at a time and assume that all other factors remain unchanged. Actual results can differ significantly from these estimates for a variety of reasons including the interaction among these factors when more than one changes; changes in actuarial and investment return and future investment activity assumptions; actual experience differing from the assumptions, changes in business mix, effective tax rates and other market factors; and the general limitations of our internal models. For these reasons, the sensitivities should only be viewed as directional estimates of the underlying sensitivities for the respective factors based on the assumptions outlined below. Given the nature of these calculations, we cannot provide assurance that the actual impact on net income attributed to shareholders or on MLI's MCCSR ratio will be as indicated.

## Publicly Traded Equity Performance Risk

As outlined above, the macro hedging strategy is designed to mitigate public equity risk arising from variable annuity guarantees not dynamically hedged and from other products and fees. In addition, our variable annuity guarantee dynamic hedging strategy is not designed to completely offset the sensitivity of policy liabilities to all risks associated with the guarantees embedded in these products.

The tables below show the potential impact on net income attributed to shareholders resulting from an immediate 10, 20 and 30% change in market values of publicly traded equities followed by a return to the expected level of growth assumed in the valuation of policy liabilities, including embedded derivatives. The potential impact is shown after taking into account the impact of the change in markets on the hedge assets. While we cannot reliably estimate the amount of the change in dynamically hedged variable annuity guarantee liabilities that will not be offset by the profit or loss on the dynamic hedge assets, we make certain assumptions for the purposes of estimating the impact on shareholders' net income.

This estimate assumes that the performance of the dynamic hedging program would not completely offset the gain/loss from the dynamically hedged variable annuity guarantee liabilities. It assumes that the hedge assets are based on the actual position at the period end, and that equity hedges in the dynamic program are rebalanced at 5% intervals. In addition, we assume that the macro hedge assets are rebalanced in line with market changes.

It is also important to note that these estimates are illustrative, and that the hedging program may underperform these estimates, particularly during periods of high realized volatility and/or periods where both interest rates and equity market movements are unfavourable.

This disclosure has been simplified in 2014 to exclude the impact of assuming that the change in the value of dynamic hedge assets completely offsets the change in dynamically hedged variable annuity guarantees, and now shows the impact of macro and dynamic hedge assets in aggregate.

**Potential impact on net income attributed to shareholders arising from changes to public equity returns**[1]

| As at December 31, 2014 (C$ millions) | -30% | -20% | -10% | 10% | 20% | 30% |
|---|---|---|---|---|---|---|
| **Underlying sensitivity to net income attributed to shareholders**[2] | | | | | | |
| Variable annuity guarantees | **$ (4,480)** | **$ (2,570)** | **$ (1,100)** | **$ 740** | **$ 1,210** | **$ 1,510** |
| Asset based fees | **(360)** | **(240)** | **(120)** | **120** | **240** | **360** |
| General fund equity investments[3] | **(650)** | **(440)** | **(210)** | **220** | **450** | **680** |
| Total underlying sensitivity before hedging | **$ (5,490)** | **$ (3,250)** | **$ (1,430)** | **$ 1,080** | **$ 1,900** | **$ 2,550** |
| Impact of macro and dynamic hedge assets[4] | **$ 3,770** | **$ 2,150** | **$ 950** | **$ (850)** | **$ (1,460)** | **$ (1,940)** |
| **Net potential impact on net income after impact of hedging** | **$ (1,720)** | **$ (1,100)** | **$ (480)** | **$ 230** | **$ 440** | **$ 610** |

| As at December 31, 2013 (C$ millions) | -30% | -20% | -10% | 10% | 20% | 30% |
|---|---|---|---|---|---|---|
| **Underlying sensitivity to net income attributed to shareholders**[2] | | | | | | |
| Variable annuity guarantees | $ (4,120) | $ (2,310) | $ (960) | $ 610 | $ 1,060 | $ 1,380 |
| Asset based fees | (310) | (210) | (110) | 110 | 210 | 310 |
| General fund equity investments[3] | (420) | (280) | (130) | 140 | 280 | 430 |
| Total underlying sensitivity before hedging | $ (4,850) | $ (2,800) | $ (1,200) | $ 860 | $ 1,550 | $ 2,120 |
| Impact of macro and dynamic hedge assets[4] | $ 3,510 | $ 1,880 | $ 770 | $ (680) | $ (1,160) | $ (1,510) |
| **Net potential impact on net income after impact of hedging** | $ (1,340) | $ (920) | $ (430) | $ 180 | $ 390 | $ 610 |

[1] See "Caution Related to Sensitivities" above.
[2] Defined as earnings sensitivity to a change in public equity markets including settlements on reinsurance contracts, but before the offset of hedge assets or other risk mitigants.
[3] This impact for general fund equities is calculated as at a point-in-time and does not include: (i) any potential impact on public equity weightings; (ii) any gains or losses on AFS public equities held in the Corporate and Other segment; or (iii) any gains or losses on public equity investments held in Manulife Bank. The participating policy funds are largely self-supporting and generate no material impact on net income attributed to shareholders as a result of changes in equity markets.
[4] Includes the impact of rebalancing equity hedges in the macro and dynamic hedging program. The impact of dynamic hedge rebalancing represents the impact of rebalancing equity hedges for dynamically hedged variable annuity guarantee best estimate liabilities at 5% intervals, but does not include any impact in respect of other sources of hedge ineffectiveness e.g., fund tracking, realized volatility and equity, interest rate correlations different from expected among other factors.

Changes in equity markets impact our available and required components of the MCCSR ratio. The following table shows the potential impact to MLI's MCCSR ratio resulting from changes in public equity market values, assuming that the change in the value of the hedge assets does not completely offset the change of the related variable annuity guarantee liabilities.

**Potential impact on MLI's MCCSR ratio arising from public equity returns different than the expected return for policy liability valuation**[1],[2]

| | Impact on MLI's MCCSR ratio | | | | | |
|---|---|---|---|---|---|---|
| Percentage points | -30% | -20% | -10% | 10% | 20% | 30% |
| **December 31, 2014** | **(20)** | **(10)** | **(4)** | **1** | **7** | **11** |
| December 31, 2013 | (14) | (8) | (4) | 13 | 25 | 25 |

[1] See "Caution Related to Sensitivities" above. In addition, estimates exclude changes to the net actuarial gains/losses with respect to the Company's pension obligations as a result of changes in equity markets, as the impact on the quoted sensitivities is not considered to be material.
[2] The potential impact is shown assuming that the change in value of the hedge assets does not completely offset the change in the dynamically hedged variable annuity guarantee liabilities. The estimated amount that would not be completely offset relates to our practices of not hedging the provisions for adverse deviation and of rebalancing equity hedges for dynamically hedged variable annuity liabilities at 5% intervals.

The impact on the capital ratio at December 31, 2014 to positive equity markets has declined from the prior year due to the fact that required capital on segregated funds is no longer at the level at which additional gains can be immediately reflected in the ratio.

The following table shows the notional value of shorted equity futures contracts utilized for our variable annuity guarantee dynamic hedging and our macro equity risk hedging strategies.

**Notional value of shorted equity futures contracts**

| As at December 31, (C$ millions) | 2014 | 2013 |
|---|---|---|
| For variable annuity guarantee dynamic hedging strategy[1] | **$ 10,700** | $ 7,500 |
| For macro equity risk hedging strategy | **3,000** | 2,000 |
| **Total** | **$ 13,700** | $ 9,500 |

[1] Reflects net short and long positions for exposures to similar indices.

The equity futures notional amount required for the dynamic hedging programs increased by $3.2 billion and for the macro hedging program increased by $1.0 billion during 2014. The increase related to market movements and to normal rebalancing to maintain our desired equity market risk position.

### Interest Rate and Spread Risk

Effective December 31, 2014, as a result of decreases in interest rates we changed our disclosure on the potential impact of a parallel change in interest rates from a change of 100 basis points to a change of 50 basis points. At December 31, 2014, we estimated the sensitivity of our net income attributed to shareholders to a 50 basis point parallel decline in interest rates to be a charge of $100 million, and to a 50 basis point increase in interest rates to be a benefit of $100 million. The $100 million decrease in sensitivity to a 50 basis point decline in interest rates from December 31, 2013 was primarily attributable to the implementation of the revised Canadian Actuarial Standards of Practice related to economic reinvestment assumptions and resulting changes to the methodology used to develop the risk free interest rate scenarios used in our policy liability calculations and to normal rebalancing as part of our interest rate risk hedging program.

The 50 basis point parallel change includes a change of 50 basis points in current government, swap and corporate rates for all maturities across all markets with no change in credit spreads between government, swap and corporate rates, and with a floor of zero on government rates, relative to the rates assumed in the valuation of policy liabilities, including embedded derivatives. For variable annuity guarantee liabilities that are dynamically hedged, it is assumed that interest rate hedges are rebalanced at 20 basis point intervals.

As the sensitivity to a 50 basis point change in interest rates includes any associated change in reinvestment scenarios used to calculate our actuarial liabilities, the impact of changes to interest rates for less than, or more than 50 basis points is unlikely to be linear. The reinvestment scenario changes tend to amplify the negative effects of a decrease in interest rates, and dampen the positive effects of interest rate increases. Furthermore, the actual impact on net income attributed to shareholders of non-parallel interest rate movements may differ from the estimated impact of parallel movements because our exposure to interest rate movements is not uniform across all durations.

The potential impact on annual net income attributed to shareholders does not allow for any future potential changes to the URR assumptions or other potential impacts of lower interest rate levels, for example, increased strain on the sale of new business or lower interest earned on our surplus assets. It also does not reflect any impact arising from the sale of fixed income assets held in our surplus segment. Changes in the market value of these assets may provide a natural economic offset to the interest rate risk arising from our product liabilities. In order for there to also be an accounting offset, the Company would need to realize a portion of the AFS fixed income asset unrealized gains or losses. It is not certain we would crystallize any of the unrealized gains or losses available. As at December 31, 2014, the AFS fixed income assets held in the surplus segment were in a net after-tax unrealized gain position of $312 million (gross after-tax unrealized gains were $413 million and gross after-tax unrealized losses were $101 million).

The following table shows the potential impact on net income attributed to shareholders including the change in the market value of fixed income assets held in our surplus segment, which could be realized through the sale of these assets.

**Potential impact on net income attributed to shareholders and MLI's MCCSR ratio of an immediate parallel change in interest rates relative to rates assumed in the valuation of policy liabilities**[(1),(2),(3),(4),(5)]

| | **2014** | | 2013 | |
|---|---|---|---|---|
| **As at December 31,** | -50bp | +50bp | -50bp | +50bp |
| **Net income attributed to shareholders** (C$ millions) | | | | |
| Excluding change in market value of AFS fixed income assets held in the surplus segment | **$ (100)** | **$ 100** | $ (200) | $ 100 |
| From fair value changes in AFS fixed income assets held in surplus, if realized | **500** | **(400)** | 300 | (300) |
| **MLI's MCCSR ratio** (Percentage points) | | | | |
| Before impact of change in market value of AFS fixed income assets held in the surplus segment[(5)] | **(7)** | **5** | (7) | 8 |
| From fair value changes in AFS fixed income assets held in surplus, if realized | **3** | **(3)** | 2 | (2) |

(1) See "Caution Related to Sensitivities" above. In addition, estimates exclude changes to the net actuarial gains/losses with respect to the Company's pension obligations as a result of changes in interest rates, as the impact on the quoted sensitivities is not considered to be material.

(2) Includes guaranteed insurance and annuity products, including variable annuity contracts as well as adjustable benefit products where benefits are generally adjusted as interest rates and investment returns change, a portion of which have minimum credited rate guarantees. For adjustable benefit products subject to minimum rate guarantees, the sensitivities are based on the assumption that credited rates will be floored at the minimum.

(3) The amount of gain or loss that can be realized on AFS fixed income assets held in the surplus segment will depend on the aggregate amount of unrealized gain or loss.

(4) Sensitivities are based on projected asset and liability cash flows at the beginning of the quarter adjusted for the estimated impact of new business, investment markets and asset trading during the quarter. Any true-up to these estimates, as a result of the final asset and liability cash flows to be used in the next quarter's projection, are reflected in the next quarter's sensitivities. Impact of realizing fair value changes in AFS fixed income is as of the end of the quarter.

(5) The impact on MLI's MCCSR ratio includes both the impact of lower earnings on available capital as well as the increase in required capital that results from a decline in interest rates. The potential increase in required capital accounted for 6 of the 7 points impact of a 50 basis point decline in interest rates on MLI's MCCSR ratio in the fourth quarter of 2014.

The following tables show the potential impact on net income attributed to shareholders resulting from a change in corporate spreads and swap spreads over government bond rates for all maturities across all markets with a floor of zero on the total interest rate, relative to the spreads assumed in the valuation of policy liabilities.

**Potential impact on net income attributed to shareholders arising from changes to corporate spreads[(1),(2),(3),(4)]**

| As at December 31, (C$ millions) | **2014** | | 2013 | |
|---|---|---|---|---|
| | -50bp | +50bp | -50bp | +50bp |
| **Corporate spreads** | **$ (500)** | **$ 500** | $ (400) | $ 400 |

(1) See "Caution Related to Sensitivities" above.
(2) The impact on net income attributed to shareholders assumes no gains or losses are realized on our AFS fixed income assets held in the surplus segment and excludes the impact arising from changes in off-balance sheet bond fund value arising from changes in credit spreads. The participating policy funds are largely self-supporting and generate no material impact on net income attributed to shareholders as a result of changes in corporate spreads.
(3) Sensitivities are based on projected asset and liability cash flows at the beginning of the fourth quarter adjusted for the estimated impact of new business, investment markets and asset trading during the quarter. Any true-up to these estimates, as a result of the final asset and liability cash flows to be used in the next quarter's projection, are reflected in the next quarter's sensitivities.
(4) Corporate spreads are assumed to grade to the long-term average over 5 years.

As the sensitivity to a 50 basis point decline in corporate spreads includes the impact of a change in prescribed reinvestment scenarios where applicable, the impact of changes to corporate spreads for less than, or more than, the amounts indicated are unlikely to be linear.

The potential earnings impact of a 50 basis point decline in corporate spreads related to the impact of the scenario change was not substantial at December 31, 2014. The $100 million increase in sensitivity to corporate spreads was primarily attributable to the interest rate and corporate spread movements during 2014 and the impact of the revised Canadian Actuarial Standards of Practice related to economic reinvestment assumptions.

**Potential impact on net income attributed to shareholders arising from changes to swap spreads[(1),(2),(3)]**

| As at December 31, (C$ millions) | **2014** | | 2013 | |
|---|---|---|---|---|
| | -20bp | +20bp | -20bp | +20bp |
| **Swap spreads**[(2)] | **$ 500** | **$ (500)** | $ 400 | $ (400) |

(1) See "Caution Related to Sensitivities" above.
(2) The impact on net income attributed to shareholders assumes no gains or losses are realized on our AFS fixed income assets held in the surplus segment and excludes the impact arising from changes in off-balance sheet bond fund value arising from changes in credit spreads. The participating policy funds are largely self-supporting and generate no material impact on net income attributed to shareholders as a result of changes in swap spreads.
(3) Sensitivities are based on projected asset and liability cash flows at the beginning of the fourth quarter adjusted for the estimated impact of new business, investment markets and asset trading during the quarter. Any true-up to these estimates, as a result of the final asset and liability cash flows to be used in the next quarter's projection, are reflected in the next quarter's sensitivities.

The $100 million increase in sensitivity to swap spreads was primarily attributable to the interest rate and swap spread movements during 2014 and to normal rebalancing as part of our interest rate risk hedging program.

### Alternative Long-Duration Asset ("ALDA") Performance Risk

The following table shows the potential impact on net income attributed to shareholders resulting from changes in market values of ALDA different than the expected levels assumed in the valuation of policy liabilities.

**Potential impact on net income attributed to shareholders arising from changes in ALDA returns[(1),(2),(3),(4)]**

| As at December 31, (C$ millions) | **2014** | | 2013 | |
|---|---|---|---|---|
| | -10% | 10% | -10% | 10% |
| Real estate, agriculture and timber assets | **$ (1,000)** | **$ 1,000** | $ (1,000) | $ 1,000 |
| Private equities and other alternative long-duration assets | **(1,000)** | **900** | (900) | 800 |
| **Alternative long-duration assets** | **$ (2,000)** | **$ 1,900** | $ (1,900) | $ 1,800 |

(1) See "Caution Related to Sensitivities" above.
(2) This impact is calculated as at a point-in-time impact and does not include: (i) any potential impact on ALDA weightings; (ii) any gains or losses on ALDA held in the Corporate and Other segment; or (iii) any gains or losses on ALDA held in Manulife Bank.
(3) The participating policy funds are largely self-supporting and generate no material impact on net income attributed to shareholders as a result of changes in ALDA returns.
(4) Net income impact does not consider any impact of the market correction on assumed future return assumptions.

The increased sensitivity from December 31, 2013 to December 31, 2014 is primarily due to the decrease in risk free rates in some jurisdictions during the period, decreasing the rate at which funds can be reinvested, as well as the increase in market value of the ALDA, due to investment activities. This was partially offset by the implementation of the revised Canadian Actuarial Standards of Practice related to economic reinvestment assumptions and the resulting introduction of a new margin for adverse deviation where policy liabilities are supported by ALDA or public equities.

### Foreign Exchange Risk

The Company generally matches the currency of its assets with the currency of the insurance and investment contract liabilities they support, with the objective of mitigating risk of loss arising from currency exchange rate changes. As at December 31, 2014, the Company did not have a material unmatched currency exposure.

The following table shows the impact on core earnings of a 10% change in the Canadian dollar relative to our key operating currencies.

### Potential impact on core earnings[1],[2]

| | **2014** | | 2013 | |
|---|---|---|---|---|
| **As at December 31,** <br> **(C$ millions)** | +10% strengthening | -10% weakening | +10% strengthening | -10% weakening |
| 10% change in the Canadian dollar relative to the U.S. dollar and the Hong Kong dollar | **$ (195)** | **$ 195** | $ (190) | $ 190 |
| 10% change in the Canadian dollar relative to the Japanese yen | **(30)** | **30** | (10) | 10 |

(1) This item is a non-GAAP measure. See "Performance and Non-GAAP Measures" below.
(2) See "Caution Related to Sensitivities" above.

## Liquidity Risk

***Liquidity risk is the risk of not having access to sufficient funds or liquid assets to meet both expected and unexpected cash and collateral demands.***

### Key Risk Factors

Manulife is exposed to liquidity risk in each of our operating companies and in our holding company. In the operating companies, expected cash and collateral demands arise day-to-day to fund anticipated policyholder benefits, withdrawals of customer deposit balances, reinsurance settlements, derivative instrument settlements/collateral pledging, expenses, investment and hedging activities. Under stressed conditions, unexpected cash and collateral demands could arise primarily from a change in the level of policyholders either terminating policies with large cash surrender values or not renewing them when they mature, withdrawals of customer deposit balances, borrowers renewing or extending their loans when they mature, derivative settlements or collateral demands, and reinsurance settlements or collateral demands.

With the implementation of the Dodd-Frank bill in the United States, clearing of certain derivatives is now mandatory. The execution of derivative transactions through clearing houses or regulated facilities requires incremental liquidity requirements in the form of upfront collateral. Additionally, changes in derivative values are required to be settled in cash on a daily basis instead of pledging collateral. However, this will not become significant for Manulife until a large portion of our derivatives have transitioned to exchanges and market conditions adverse to liquidity (material increases in interest rates and/or equity markets) have been experienced. Other jurisdictions in which Manulife entities operate in are expected to enact similar regulations within the next few years.

The ability of our holding company to fund its cash requirements depends upon it receiving dividends, distributions and other payments from our operating subsidiaries. These subsidiaries are generally required to maintain solvency and capital standards imposed by their local regulators and, as a result, may have restrictions on payments which they may make to MFC.

In the normal course of business, third party banks issue letters of credit on our behalf. In lieu of posting collateral, our businesses utilize letters of credit for which third parties are the beneficiaries, as well as for affiliate reinsurance transactions between subsidiaries of MFC. Letters of credit and letters of credit facilities must be renewed periodically. At time of renewal, the Company is exposed to repricing risk and under adverse conditions increases in costs will be realized. In the most extreme scenarios, letters of credit capacity could become constrained due to non-renewals which would restrict our flexibility to manage capital at the operating company level. This could negatively impact our ability to meet local capital requirements or our sales of products in jurisdictions in which our operating companies have been affected. Although the Company did not experience any material change in aggregate capacity during the recent global financial crisis, changes in prices and conditions were adverse during the market turbulence. There were no assets pledged against these outstanding letters of credit as at December 31, 2014.

### Risk Management Strategy

Global liquidity management policies and procedures are designed to provide adequate liquidity to cover cash and collateral obligations as they come due, and to sustain and grow operations in both normal and stressed conditions. They take into account any legal, regulatory, tax, operational or economic impediments to inter-entity funding.

We seek to reduce liquidity risk by diversifying our business across different products, markets, geographical regions and policyholders. We design insurance products to encourage policyholders to maintain their policies in-force, to help generate a diversified and stable flow of recurring premium income. We design the policyholder termination features of our wealth management products and related investment strategies with the goal of mitigating the financial exposure and liquidity risk related to unexpected policyholder terminations. We establish and implement investment strategies intended to match the term profile of the assets to the liabilities they support, taking into account the potential for unexpected policyholder terminations and resulting liquidity needs. Liquid assets represent a large portion of our total assets. We aim to reduce liquidity risk in our deposit funded businesses by diversifying our funding sources and appropriately managing the term structure of our funding. We forecast and monitor daily operating liquidity and cash movements in various individual entities and operations as well as centrally, aiming to ensure liquidity is available and cash is employed optimally.

We also maintain centralized cash pools and access to other sources of liquidity such as repurchase funding agreements. Our centralized cash pool consists of cash or near-cash, high quality short-term investments that are continually monitored for their credit quality and market liquidity.

Through the normal course of business, pledging of assets is required to comply with jurisdictional regulatory and other requirements including collateral pledged to mitigate derivative counterparty credit risk, assets pledged to exchanges as initial margin and assets held as collateral for repurchase funding agreements. Total unencumbered assets were $318.4 billion as at December 31, 2014 (2013 – $269.2 billion).

We manage the asset mix of our balance sheet taking into account the need to hold adequate unencumbered and appropriate liquid assets to satisfy the potential additional requirements arising under stressed scenarios and to allow our liquidity ratios to remain strong.

The following table outlines the maturity of the Company's significant financial liabilities.

### Maturity of financial liabilities[1],[2]

| As at December 31, 2014 | Less than 1 year | 1 to 3 years | 3 to 5 years | Over 5 years | Total |
|---|---|---|---|---|---|
| Long-term debt | **$ 2,145** | **$ 164** | **$ 998** | **$ 578** | **$ 3,885** |
| Capital instruments | **–** | **–** | **–** | **5,426** | **5,426** |
| Liabilities for subscription receipts[3] | **2,220** | **–** | **–** | **–** | **2,220** |
| Derivatives | **99** | **302** | **413** | **10,469** | **11,283** |
| Deposits from bank clients[4] | **14,046** | **3,299** | **1,039** | **–** | **18,384** |
| Lease obligations | **149** | **147** | **64** | **443** | **803** |

[1] The amounts shown above are net of the related unamortized deferred issue costs.

[2] Class A preferred shares, Series 1 are redeemable by the Company by payment of cash or issuance of MFC common shares and are convertible at the option of the holder into MFC common shares on or after December 15, 2015. These shares have not been included in the above table.

[3] On January 30, 2015, upon the closing of the acquisition of the Canadian-based operations of Standard Life Plc, the issued and outstanding subscription receipts were exchanged for MFC common shares. Therefore, this liability has been extinguished.

[4] Carrying value and fair value of deposits from bank clients as at December 31, 2014 was $18,384 million and $18,494 million, respectively (2013 – $19,869 million and $19,953 million, respectively). Fair value is determined by discounting contractual cash flows, using market interest rates currently offered for deposits with similar terms and conditions. All deposits from bank clients were categorized in Level 2 of the fair value hierarchy (2013 – Level 2).

### Risk Exposure Measures

Consolidated group operating and strategic liquidity levels are managed against established minimums. We set minimum operating liquidity above the level of the highest one month's operating cash outflows projected over the next 12 months. We measure strategic liquidity under both immediate (within one month) and ongoing (within one year) stress scenarios. Our policy is to maintain the ratio of adjusted liquid assets to adjusted policy liabilities at or above a pre-established limit. Adjusted liquid assets include unencumbered cash and short-term investments, and marketable bonds and stocks that are discounted to reflect convertibility to cash, net of maturing debt obligations. Policy liabilities are adjusted to reflect their potential for withdrawal.

In addition to managing the consolidated liquidity levels, each entity maintains sufficient liquidity to meet its standalone demands.

Our strategic liquidity ratios are provided in the following table.

| As at December 31, (C$ millions, unless otherwise stated) | **2014** Immediate Scenario | **2014** Ongoing Scenario | 2013 Immediate Scenario | 2013 Ongoing Scenario |
|---|---|---|---|---|
| Adjusted liquid assets | **$ 141,385** | **$ 144,179** | $ 118,358 | $ 117,350 |
| Adjusted policy liabilities | **31,044** | **39,780** | 26,550 | 34,250 |
| Liquidity ratio | **455%** | **362%** | 446% | 343% |

Additionally, the market value of our derivative portfolio is periodically stress tested based on market shocks to assess the potential collateral and cash settlement requirements under stressed conditions. Increased use of derivatives for hedging purposes has necessitated greater emphasis on measurement and management of contingent liquidity risk. Comprehensive liquidity stress testing measures, on an integrated basis, the impact of market shocks on derivative collateral and margin requirements, reserve requirements, reinsurance settlements, policyholder behaviour and the market value of eligible liquid assets. Stressed liquidity ratios are measured against established limits.

Manulife Bank has a standalone liquidity risk management policy framework. The framework includes stress testing, cash flow modeling, a funding plan and a contingency plan. The bank has an established securitization infrastructure which enables the bank to access a range of funding and liquidity sources.

## Credit Risk

***Credit risk is the risk of loss due to the inability or unwillingness of a borrower or counterparty to fulfill its payment obligations.***

### Key Risk Factors

Worsening regional and global economic conditions could result in borrower or counterparty defaults or downgrades, and could lead to increased provisions or impairments related to our general fund invested assets and off-balance sheet derivative financial instruments, and an increase in provisions for future credit impairments to be included in our policy liabilities. Any of our reinsurance providers being unable or unwilling to fulfill their contractual obligations related to the liabilities we cede to them could lead to an increase in policy liabilities.

### Risk Management Strategy

The Company has established objectives for overall quality and diversification of our general fund investment portfolio and criteria for the selection of counterparties, including derivative counterparties, reinsurers and insurance providers. Our policies establish exposure limits by borrower, corporate connection, quality rating, industry, and geographic region, and govern the usage of credit derivatives. Corporate connection limits vary according to risk rating. Our general fund fixed income investments are primarily public and private investment grade bonds and commercial mortgages. We have a program for selling Credit Default Swaps ("CDS") that employs a highly selective, diversified and conservative approach. All CDS decisions follow the same underwriting standards as our cash bond portfolio and the addition of this asset class will allow us to better diversify our overall credit portfolio.

Our credit granting units follow a defined evaluation process that provides an objective assessment of credit proposals. We assign each investment a risk rating based on a detailed examination of the borrower that includes a review of business strategy, market competitiveness, industry trends, financial strength, access to funds, and other risks facing the organization. We assess and update risk ratings regularly, based on a standardized 22-point scale consistent with those of external rating agencies. For additional input to the process, we also assess credit risks using a variety of industry standard market-based tools and metrics. We map our risk ratings to pre-established probabilities of default and loss given defaults, based on historical industry and Company experience, and to resulting default costs.

We establish delegated credit approval authorities and make credit decisions on a case-by-case basis at a management level appropriate to the size and risk level of the transaction, based on the delegated authorities that vary according to risk rating. Major credit decisions are referred to the Transaction and Portfolio Review Committee and the largest credit decisions are referred to the CEO for approval and, in certain cases, to the Board of Directors for approval.

We limit the types of authorized derivatives and applications and require pre-approval of all derivative application strategies and regular monitoring of the effectiveness of derivative strategies. Derivative counterparty exposure limits are established based on a minimum acceptable counterparty credit rating (generally A- from internationally recognized rating agencies). We measure derivative counterparty exposure as net potential credit exposure, which takes into consideration mark-to-market values of all transactions with each counterparty, net of any collateral held, and an allowance to reflect future potential exposure. Reinsurance counterparty exposure is measured reflecting the level of ceded liabilities. We require all reinsurance counterparties and insurance providers to meet minimum risk rating criteria.

Regular reviews of the credits within the various portfolios are undertaken with the goal of identifying changes to credit quality, and where appropriate, taking corrective action. Prompt identification of problem credits is a key objective. Credit Risk Management provides independent credit risk oversight by reviewing assigned risk ratings, and monitoring problem and potential problem credits.

We establish an allowance for losses on a loan when it becomes impaired as a result of deterioration in credit quality, to the extent there is no longer assurance of timely realization of the carrying value of the loan and related investment income. We reduce the carrying value of an impaired loan to its estimated net realizable value when we establish the allowance. We establish an allowance for losses on reinsurance contracts when a reinsurance counterparty becomes unable or unwilling to fulfill its contractual obligations. We base the allowance for loss on current recoverables and ceded policy liabilities. There is no assurance that the allowance for losses will be adequate to cover future potential losses or that additional allowances or asset write-downs will not be required.

Policy liabilities include general provisions for credit losses from future asset impairments. We set these conservatively, taking into account average historical levels and future expectations, with a provision for adverse deviations. Fluctuations in credit default rates and deterioration in credit ratings of borrowers may result in losses if actual rates exceed expected rates.

Throughout recent periods of challenging credit conditions, our credit policies, procedures and investment strategies have remained fundamentally unchanged. Credit exposure in our investment portfolio is actively managed to reduce risk and mitigate losses, and derivative counterparty exposure is managed proactively. Defaults and downgrade charges were generally below our historical average in 2014, however, we still expect volatility on a quarterly basis and losses could potentially rise above long-term expected levels.

### Risk Exposure Measures

As at December 31, 2014 and December 31, 2013, for every 50% that credit defaults over the next year exceed the rates provided for in policy liabilities, net income attributed to shareholders would be reduced by $49 million in each year. Downgrades could also be higher than assumed in policy liabilities resulting in policy liability increases and a reduction in net income attributed to shareholders.

The table below shows net impaired assets and allowances for loan losses.

### Net Impaired Assets and Loan Losses

| **As at December 31,**<br>**(C$ millions, unless otherwise stated)** | **2014** | 2013 |
|---|---|---|
| Net impaired fixed income assets | **$ 223** | $ 307 |
| Net impaired fixed income assets as a % of total invested assets | **0.083%** | 0.130% |
| Allowance for loan losses | **$ 109** | $ 106 |

### Insurance Risk

Insurance risk is the risk of loss due to actual experience emerging differently than assumed when a product was designed and priced with respect to mortality and morbidity claims, policyholder behaviour and expenses.

### Key Risk Factors

We make a variety of assumptions related to the future level of claims, policyholder behaviour, expenses and sales levels when we design and price products, and when we establish policy liabilities. Assumptions for future claims are generally based on both Company and industry experience, and assumptions for future policyholder behaviour are generally based on Company experience. Assumptions for future policyholder behaviour include assumptions related to the retention rates for insurance and wealth products. Losses may result should actual experience be materially different than that assumed in the valuation of policy liabilities. Such losses could have a significant adverse effect on our results of operations and financial condition. In addition, we periodically review the assumptions we make in determining our policy liabilities and the review may result in an increase in policy liabilities and a decrease in net income attributed to shareholders. Such assumptions require significant professional judgment, and actual experience may be materially different than the assumptions we make.

Life and health insurance claims may be impacted by the unusual onset of disease or illness, natural disasters, large-scale man-made disasters and acts of terrorism. The cost of health insurance benefits may also be impacted by unforeseen trends in the incidence, termination and severity rates of claims. The ultimate level of lifetime benefits paid to policyholders may be impacted by unexpected changes in life expectancy. Policyholder behaviour including premium payment patterns, policy renewals, lapse rates and withdrawal and surrender activity are influenced by many factors including market and general economic conditions, and the availability and relative attractiveness of other products in the marketplace. For example, a weak or declining economic environment could increase the value of guarantees associated with variable annuities or other embedded guarantees and contribute to adverse policyholder behaviour experience. As well, adverse claims experience could result from systematic anti-selection, which could arise from the development of investor owned and secondary markets for life insurance policies, anti-selective lapse behaviour underwriting process failures, or other factors.

We purchase reinsurance protection on certain risks underwritten by our various business segments. External market conditions determine the availability, terms and cost of the reinsurance protection for new business and, in certain circumstances, the cost of reinsurance for business already reinsured. Accordingly, we may be forced to incur additional costs for reinsurance or may not be able to obtain sufficient reinsurance on acceptable terms, which could adversely affect our ability to write future business or result in the assumption of more risk with respect to those policies we issue.

### Risk Management Strategy

We have established a broad framework for managing insurance risk under our Product Design and Pricing Policy, Underwriting and Claims Management Policy and Reinsurance Risk Management Policy, as well as supporting global product design and pricing standards and guidelines, and reinsurance guidelines, aimed to help ensure our product offerings align with our risk taking philosophy and risk limits, and achieve acceptable profit margins. These cover:

- product design features
- use of reinsurance
- pricing models and software
- internal risk-based capital allocations
- target profit objectives
- pricing methods and assumption setting
- stochastic and stress scenario testing
- required documentation
- review and approval processes
- experience monitoring programs

In each business unit, we designate individual pricing officers who are accountable for all pricing activities and chief underwriters who are accountable for underwriting activities. Both the pricing officer and the general manager of each business unit approve the design and pricing of each product, including key claims, policyholder behaviour, investment return and expense assumptions, in accordance with corporate policies and standards. Divisional and Group risk management provides additional oversight and review of all product and pricing initiatives, as well as reinsurance treaties related to new business. In addition, Group Finance Actuarial approves all significant policy liability valuation methods, assumptions and in-force reinsurance treaties. We perform annual risk and compliance self-assessments of the product development, pricing, underwriting and claims activities of all businesses. We also facilitate knowledge transfer between staff working with similar businesses in different geographies in order to leverage best practices.

We utilize a global underwriting manual intended to ensure insurance underwriting practices for direct written life business are consistent across the organization while reflecting local conditions. Each business unit establishes underwriting policies and procedures, including criteria for approval of risks and claims adjudication policies and procedures.

We apply retention limits per insured life that are intended to reduce our exposure to individual large claims which are monitored in each business unit. These retention limits vary by market and jurisdiction. We reinsure exposure in excess of these limits with other companies. Our current global retention limit is US$30 million for a single life (US$35 million for survivorship life policies) and is shared across businesses. We apply lower limits in some markets and jurisdictions. We aim to further reduce exposure to claims concentrations by applying geographical aggregate retention limits for certain covers. Enterprise-wide, we aim to reduce the likelihood of high aggregate claims by operating internationally and insuring a wide range of unrelated risk events.

The Company's aggregate exposure to each of policyholder behaviour risk and claims risk are managed against enterprise-wide economic capital and earnings at risk limits. Policyholder behaviour risk limits cover the combined risk arising from policy lapses and surrenders, withdrawals and other policyholder driven activity. The claims risk limits cover the combined risk arising from mortality, longevity and morbidity.

Internal experience studies, as well as trends in our experience and that of the industry, are monitored to update current and projected claims and policyholder behaviour assumptions, resulting in updates to policy liabilities as appropriate.

We continue to seek state regulatory approvals for price increases on existing long-term care business in the U.S. We cannot be certain whether or when each approval will be granted. Our policy liabilities reflect our estimates of the impact of these price increases, but should we be less successful than anticipated in obtaining them, then policy liabilities would increase accordingly.

### Operational Risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, risk management policies and procedures, systems failures, human performance failures or from external events.

#### Key Risk Factors

Operational risk is naturally present in all of our business activities and encompasses a broad range of risks, including regulatory compliance failures, legal disputes, technology failures, business interruption, information security and privacy breaches, human resource management failures, processing errors, modelling errors, business integration, theft and fraud, and damage to physical assets. Exposures can take the form of financial losses, regulatory sanctions, loss of competitive positioning, or damage to our reputation. Operational risk is also embedded in all the practices we use to manage other risks; therefore, if not managed effectively, operational risk can impact our ability to manage other key risks such as credit risk, market risk, liquidity risk and insurance risk. While operational risk can never be fully eliminated, it can be managed to reduce exposure to financial loss, reputational harm or regulatory sanctions.

#### Risk Management Strategy

Our corporate governance practices, corporate values, and integrated enterprise-wide approach to managing risk set the foundation for mitigating operational risks. This base is further strengthened by internal controls and systems, compensation programs, and seeking to hire and retain trained and competent people throughout the organization. We align compensation programs with business strategy, long-term shareholder value and good governance practices, and we benchmark these compensation practices against peer companies.

We have an enterprise operational risk management framework that sets out the processes we use to identify, assess, manage, mitigate and report on significant operational risk exposures. Execution of our operational risk management strategy focuses on change management and working to achieve a cultural shift toward greater awareness and understanding of operational risk. We have an Operational Risk Committee ("ORC"), a sub-committee of the ERC, which is the main decision-making committee for all operational risk matters with oversight responsibility for operational risk strategy, management and governance. We have enterprise-wide risk management programs for specific operational risks that could materially impact our ability to do business or impact our reputation.

Through our corporate insurance program, we transfer a portion of our operational risk exposure by purchasing global and local insurance coverage that provides some protection against unexpected material losses resulting from events such as criminal activity, property loss or damage, and liability exposures. We also purchase certain insurance to satisfy legal requirements and/or contractual obligations. We determine the nature and amount of insurance coverage we purchase centrally, considering our enterprise-wide exposures and risk tolerances.

The following is a further description of key operational risk factors with associated management strategies.

**Legal and Regulatory Risk**

In addition to the regulatory and capital requirements described under Strategic Risk, the Company is subject to extensive regulatory oversight by insurance and financial services regulators in the jurisdictions in which we conduct business. While many of these laws and regulations are intended to protect policyholders, beneficiaries, depositors and investors in our products and services, others also set standards and requirements for the governance of our operations. Failure to comply with applicable laws or regulations could result in financial penalties or sanctions, and damage our reputation. We are also regularly involved in litigation, both as a plaintiff or defendant, which could result in an unfavourable resolution.

Global Compliance oversees our regulatory compliance program and function, supported by designated Chief Compliance Officers in every Division. The program is designed to promote compliance with regulatory obligations worldwide and to assist in making the Company aware of the laws and regulations that affect us, and the risks associated with failing to comply. Divisional compliance groups monitor emerging legal and regulatory issues and changes, and prepare us to address new requirements. Global Compliance also independently assesses and monitors the effectiveness of a broad range of regulatory compliance processes and business practices against potential legal, regulatory, fraud and reputation risks, and helps to ensure significant issues are escalated and proactively mitigated. Among these processes and business practices are: privacy (i.e. handling of personal and other confidential information), sales and marketing practices, sales compensation practices, asset management practices, fiduciary responsibilities, employment practices, underwriting and claims processing, product design, and regulatory filings. In addition, we have policies, processes and controls in place to help protect the Company, our customers and other related third parties from acts of fraud and from risks associated with money laundering and terrorist financing. Audit Services, Global Compliance and divisional compliance personnel periodically assess the effectiveness of the control environment. For further discussion of government regulation and legal proceedings, refer to "Government Regulation" and "Legal Proceedings" in our most recent Annual Information Form.

**Technology, Information Security and Business Continuity Risks**

Technology is used in virtually all aspects of our business and operations. Our technology infrastructure, information services and applications are governed and managed according to standards for operational integrity, resiliency, data integrity, confidentiality and information security policies, standards and controls. Disruption due to system failure, security breach (including cyber-attacks), privacy breaches, human errors, natural disasters, man-made disasters, criminal activity, fraud or global crisis may occur and have adverse consequences for our business.

We have an enterprise-wide business continuity and disaster recovery program which is overseen by the Chief Information Security Officer. This includes policies, plans and procedures to minimize the impact of natural or man-made disasters, and is designed to ensure that key business functions can continue normal operations in the event of a major disruption. Each business unit is accountable for preparing and maintaining detailed business continuity plans and processes. The global program incorporates periodic scenario analysis designed to validate the assessment of both critical and non-critical units, as well as the establishment and testing of appropriate business continuity plans for all critical functions. The business continuity team establishes and regularly tests crisis management plans and global crisis communications protocols. We maintain off-site backup facilities and failover capability designed to minimize downtime and accelerate system recovery.

Information security breaches could occur and may result in inappropriate disclosure or use of personal and confidential information. To mitigate this risk, we have an enterprise-wide information security program which is overseen by the Chief Information Security Officer. This program establishes the information security framework for the Company, including governance, policies and standards, and appropriate controls to protect information and computer systems. We also have annual security awareness training sessions for all employees.

Privacy breaches could occur and may result in the unauthorized disclosure or use of private and confidential information. Many jurisdictions in which we operate are implementing more stringent privacy legislation. To manage this risk, we have a global privacy program which is overseen by the Chief Privacy Officer. This program includes policies and standards, ongoing monitoring of emerging privacy legislation, and a network of privacy officers. Processes have been established to provide guidance on handling personal information and for reporting privacy incidents and issues to appropriate management for response and resolution.

**Human Resource Risks**

We compete with other insurance companies and financial institutions for qualified executives, employees and agents. Competition for the best people is intense and an inability to recruit qualified individuals may negatively impact our ability to execute on business strategies or to conduct our operations. We have a number of human resource policies, practices and programs in place to manage these risks, including recruiting programs at every level of the organization, training and development programs, and competitive compensation programs that are designed to attract, motivate and retain high-performing and high potential employees.

**Model Risk**

Our reliance on highly complex models for pricing, valuation and risk measurement, and for input to decision making, is increasing. Consequently, the risk of inappropriate use or interpretation of our models or their output, or the use of deficient models, data or assumptions is growing. Our model risk oversight program includes processes intended to ensure that our critical business models are conceptually sound, used as intended, and to assess the appropriateness of the calculations and outputs.

### Third Party Risk

The Company relies on third parties to provide many different types of services. Should these third parties fail to deliver services in compliance with contractual or other service arrangements, our business may be adversely impacted. Our governance framework to address third party risk includes appropriate policies (such as our Outsourcing Policy), standards and procedures, and monitoring of ongoing results and contractual compliance of third party arrangements.

### Project Risk

To ensure that key projects are successfully implemented and monitored by management, we have a Global Project Management Centre of Expertise, which is responsible for establishing policies and standards for project management. Our policies, standards and practices are regularly benchmarked against leading practices.

### Environmental Risk

Our Environmental Policy reflects the Company's commitment to conducting all business activities in a manner that recognizes the need to preserve the quality of the natural environment. Environmental Procedures have been designed to manage environmental risk and to achieve compliance with all applicable environmental laws and regulations for business units, affiliates and subsidiaries. Environmental risk may originate from investment properties that are subject to natural or man-made environmental risk. The environmental risk may result from on-site or off-site (adjacent) due to migration of regulated pollutants or contaminates with financial or reputational environmental risk and liability consequences by virtue of strict liability. Real estate assets may be owned, leased and/or managed, as well as mortgaged by Manulife who might enter into the chain of liability due to foreclosure ownership when in default. Environmental risk could also arise from natural disasters (e.g., weather, fire, earthquake, floods, pests) or human activities (use of chemicals, pesticides) conducted within the site or when impacted from adjacent sites. To mitigate environmental risk, protocols and due diligence standards within the business units identify environmental issues in advance of acquisition. Historical and background investigation and subsequent soil and ground water subsurface testing may be conducted as required to assess manageable environmental risk. Regular property inspections and limitations on permitted activities further manage environmental liability or financial risk. Other potentially significant financial risks for individual assets, such as fire and earthquake, have generally been insured where practicable.

### Additional Risk Factors That May Affect Future Results

Medical advances and legislation related to genetic testing could adversely impact our underwriting abilities. Current or future global legislation in jurisdictions where Manulife operates may restrict its right to underwrite based on access to genetic test results. Without the obligation of disclosure, the asymmetry of information shared between applicant and insurer could increase anti-selection in both new business and in-force policyholder behaviour. The impact of restricting insurers' access to this information and the associated problems of anti-selection becomes more acute where genetic technology leads to advancements in diagnosis of life threatening conditions that are not matched by improvements in treatment. We cannot predict the potential financial impact that this would have on the Company or the industry as a whole. In addition, there may be further unforeseen implications as genetic testing continues to evolve and becomes more established in mainstream medical practice.

The Canadian Accounting Standards Board makes changes to the financial accounting and reporting standards that govern the preparation of our Consolidated Financial Statements. These changes may be difficult to anticipate and may materially impact how we record and present our financial condition and results of operations. As discussed under "Critical Accounting and Actuarial Policies" above, the preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts and disclosures made in the financial statements and accompanying notes. These estimates and assumptions may require revision and actual results may differ materially from these estimates. As well, as noted under "Caution regarding forward-looking statements" below, forward-looking statements involve risks and uncertainties and actual results may differ materially from those expressed or implied in such statements. Key risk factors and their management have been described above, summarized by major risk category.

Other factors that may affect future results include changes in government trade policy; monetary policy; fiscal policy; political conditions and developments in or affecting the countries in which we operate; technological changes; public infrastructure disruptions; climate change; changes in consumer spending and saving habits; the possible impact on local, national or global economies from public health emergencies, such as an influenza pandemic, and international conflicts and other developments including those relating to terrorist activities. Although we take steps to anticipate and minimize risks in general, unforeseen future events may have a negative impact on our business, financial condition and results of operations.

We caution that the preceding discussion of risks that may affect future results is not exhaustive. When relying on our forward-looking statements to make decisions with respect to our Company, investors and others should carefully consider the foregoing risks, as well as other uncertainties and potential events, and other external and Company specific risks that may adversely affect the future business, financial condition or results of operations of our Company.

# Capital Management Framework

Manulife seeks to manage its capital with the objectives of:

- Operating with sufficient capital to be able to honour commitments to its policyholders and creditors with a high degree of confidence;
- Securing the stability and flexibility to pursue the Company's business objectives by ensuring best access to capital markets and through maintaining target credit ratings and of retaining the ongoing confidence of regulators, policyholders, rating agencies, investors and other creditors; and,
- Optimizing return on capital to meet shareholders' expectations subject to constraints and considerations of adequate levels of capital established to meet the first two objectives.

Capital is managed and monitored in accordance with the Capital Management Policy. The Policy is reviewed and approved by the Board of Directors annually and is integrated with the Company's risk and financial management frameworks. It establishes guidelines regarding the quantity and quality of capital, internal capital mobility, and proactive management of ongoing and future capital requirements.

Our capital management framework takes into account the requirements of the Company as a whole as well as the needs of each of our subsidiaries. Our capital adequacy assessment considers expectations of key external stakeholders such as regulators and rating agencies, results of sensitivity testing as well as a comparison to our peers. We set our internal capital targets above regulatory requirements, monitor against these internal targets and initiate actions appropriate to achieving our business objectives.

We also periodically assess the strength of our capital position under various stress scenarios. The annual Dynamic Capital Adequacy Testing ("DCAT") typically quantifies the financial impact of economic events arising from shocks in public equity and other markets, interest rates and credit, amongst others. Our 2014 DCAT results demonstrate that we would have sufficient assets, under the various adverse scenarios tested, to discharge our policy liabilities. This conclusion is also supported by a variety of other stress tests conducted by the Company.

We integrate capital management into our product planning and performance management. Capital is generally allocated to business lines based on the higher of the internal risk-based capital and the regulatory capital levels applicable to each jurisdiction.

In order to mitigate the impact of currency movements on the consolidated capital ratios, the currency mix of assets supporting capital is managed in relation to the Company's global capital requirements. As a result, both available and required capital increase (decrease) when the Canadian dollar weakens (strengthens).

The composition of capital between equity and other capital instruments impacts the Company's financial strength ratings and therefore is an important consideration in determining the appropriate amount of leverage. The Company monitors and rebalances its capital mix through capital issuances and redemptions.

### MFC Consolidated Capital

The following measure of capital serves as the foundation of our capital management activities at the MFC level.

| **As at December 31,**<br>(C$ millions) | **2014** | 2013 | 2012 |
|---|---|---|---|
| Non-controlling interests | **$ 464** | $ 376 | $ 301 |
| Participating policyholders' equity | **156** | 134 | 146 |
| Preferred shares | **2,693** | 2,693 | 2,497 |
| Common shareholders' equity | **30,613** | 25,830 | 22,215 |
| Total equity[1] | **$ 33,926** | $ 29,033 | $ 25,159 |
| Less accumulated other comprehensive loss on cash flow hedges | **(211)** | (84) | (185) |
| Total equity less accumulated other comprehensive loss on cash flow hedges | **$ 34,137** | $ 29,117 | $ 25,344 |
| Liabilities for preferred shares and qualifying capital instruments | **5,426** | 4,385 | 3,903 |
| **Total capital** | **$ 39,563** | $ 33,502 | $ 29,247 |

[1] Total equity includes unrealized gains and losses on AFS debt securities and AFS equities, net of taxes. The unrealized gain or loss on AFS debt securities are excluded from the OSFI definition of regulatory capital. As at December 31, 2014, the unrealized gain on AFS debt securities, net of taxes, was $405 million (2013 – $58 million unrealized loss).

Total capital was $39.6 billion as at December 31, 2014 compared with $33.5 billion as at December 31, 2013, an increase of $6.1 billion. The increase included net income attributed to shareholders of $3.5 billion, currency impacts of $1.9 billion and net capital issued of $1 billion (excludes $1 billion redemption of senior debt as it is not in the definition of capital), partially offset by cash dividends of $0.9 billion over the period.

The "Total capital" above does not include $3.9 billion (2013 – $4.8 billion, 2012 – $5.0 billion) of senior indebtedness issued by MFC because this form of financing does not meet OSFI's definition of regulatory capital at the MFC level. The Company has down-streamed the proceeds from this financing into operating entities in the form that qualifies as regulatory capital at the subsidiary level.

## Capital and Funding Activities

During 2014 we raised $1.8 billion of capital and $1.8 billion of securities matured or were redeemed, including $1 billion of senior debt. As senior debt is not included in our definition of capital, the net result was a $1 billion increase in capital.

- We issued a total of $1 billion of MLI subordinated debentures during the year: $500 million (2.811%) on February 21, 2014 and $500 million (2.64%) on December 1, 2014.
- We issued a total of $800 million of MFC preferred shares throughout the year: $200 million (3.90%) on February 25, 2014, $350 million (3.90%) on August 15, 2014 and $250 million (3.80%) on December 3, 2014.
- We redeemed a total of $800 million of MFC preferred shares throughout the year: $450 million (6.60%) on June 19, 2014 and $350 million (5.60%) on September 19, 2014.
- On June 2, 2014, $1 billion (4.896%) of MFC senior debt matured.

On September 15, 2014, as part of the financing for the acquisition of the Canadian-based operations of Standard Life plc, the Company issued 105,647,334 subscription receipts through a public offering and a concurrent private placement to the Caisse de dépôt et placement du Québec. The public offering price was $21.50 per subscription receipt and the private offering price was the public offering price less a $0.48 private placement fee per subscription receipt for total gross proceeds of approximately $2.26 billion. At December 31, 2014 the subscription receipts were not included in capital as the conditions for the exchange of the subscription receipts to common shares remained outstanding until January 30, 2015. On January 30, 2015, the Company completed its purchase of the Canadian-based operations of Standard Life plc for cash consideration of $4.0 billion and the Company's outstanding subscription receipts were automatically exchanged on a one-for-one basis for 105,647,334 MFC common shares with a stated value of approximately $2.2 billion. In addition, pursuant to the terms of the subscription receipts, a dividend equivalent payment of $0.155 per subscription receipt (approximately $16 million in the aggregate) was also paid to holders of subscription receipts, which is an amount equal to the cash dividends declared on MFC common shares from September 15, 2014 to January 29, 2015.

Senior and medium term notes totaling $2.1 billion will mature in 2015.

## Financial Leverage Ratio

Our financial leverage ratio ended 2014 at 27.8% compared with 31.0% at the end of 2013. The improvement in the financial leverage ratio was primarily due to strong earnings in 2014 and the favourable impact on equity of a stronger U.S. dollar.

## Common Shareholder Dividends

The declaration and payment of shareholder dividends and the amount thereof are at the discretion of the Board of Directors and depend upon the results of operations, financial conditions, cash requirements and future prospects of the Company, taking into account regulatory restrictions on the payment of shareholder dividends as well as other factors deemed relevant by the Board of Directors.

The Company offers a Dividend Reinvestment Program ("DRIP") whereby shareholders may elect to automatically reinvest dividends in the form of MFC common shares instead of receiving cash. The offering of the program and its terms of execution are subject to the Board of Directors' discretion. In 2014, we issued 13 million common shares (2013 – 19 million) from treasury for a total consideration of $273 million (2013 – $325 million) under this program. On February 12, 2015, the Company announced that in respect of the Company's March 19, 2015 common share dividend payment date and in connection with the reinvestment of dividends and optional share purchases, the Board of Directors' approved that the required common shares be purchased on the open market. The purchase price will be based on the average of the actual cost with no discounts. There are no applicable discounts because the common shares are being purchased on the open market and are not being issued from treasury.

## Regulatory Capital Position[20]

MFC monitors and manages its consolidated capital in compliance with the OSFI Guideline A2 – Capital Regime for Regulated Insurance Holding Companies and Non-Operating Life Companies. Under this regime our consolidated available capital is measured against a required amount of risk capital determined in accordance with the guideline. MFC's capital position remains in excess of our internal targets.

MFC's operating activities are mostly conducted within MLI or its subsidiaries. MLI is regulated by OSFI and is subject to consolidated risk based capital requirements using the OSFI MCCSR framework. Some affiliate reinsurance business is undertaken outside the MLI consolidated framework.

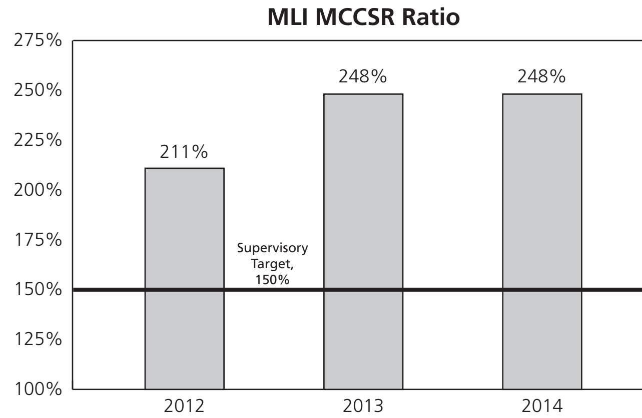
Our MCCSR ratio for MLI ended the year at 248%, the same ratio as at the end of 2013. Reported earnings were offset by funding MFC shareholder dividends and funding costs, as well as increases in required capital.

We consider MLI's MCCSR ratio to be strong in view of our materially reduced risk sensitivities and the lack of explicit capital credit for the hedging of our variable annuity liabilities.

The 2015 MCCSR Guideline took effect on January 1, 2015 and includes two notable changes, one of which is a 50% reversal of morbidity improvements, transitioned over three years. The other relates to changes in required capital for certain participating products. Overall, we expect an improvement in MLI's regulatory capital ratio resulting from the changes to the 2015 MCCSR Guideline.

[20] The "Risk Management and Risk Factors" section of the MD&A outlines a number of regulatory capital risks.

As at December 31, 2014, MLI's non-consolidated operations and subsidiaries all maintained capital levels in excess of local requirements.




Actual MLI ratios as at December 31.
OSFI regulatory minimum is 120%, with 150% supervisory target.

**Remittability of Capital**

As part of its capital management, Manulife promotes internal capital mobility so that MFC's parent company has access to funds to meet its obligations and to optimize the use of excess capital. Cash remittance is one of the key performance indicators used by management to evaluate our financial flexibility.

The total company cash remittance in 2014 was $2.4 billion (2013 – $2.5 billion).

# Credit Ratings

Manulife's insurance operating companies have strong ratings from credit rating agencies with respect to financial strength and claims paying ability. Maintaining strong ratings on debt and capital instruments issued by MFC and its subsidiaries allows us to access capital markets at competitive pricing levels. Should these credit ratings decrease materially, our cost of financing may increase and our access to funding and capital through capital markets could be reduced.

During 2014, S&P, Moody's, DBRS, Fitch and A.M. Best maintained their assigned ratings of MFC and its primary insurance operation companies. The following table summarizes the financial strength and claims paying ability ratings of MLI and certain of its subsidiaries as at February 13, 2015.

**Financial Strength/Claims Paying Ability Ratings**

| | S&P | Moody's | DBRS | Fitch | A.M. Best |
|---|---|---|---|---|---|
| The Manufacturers Life Insurance Company | **AA-** | **A1** | **IC-1** | **AA-** | **A+** |
| John Hancock Life Insurance Company (U.S.A.) | **AA-** | **A1** | **Not Rated** | **AA-** | **A+** |
| Manulife (International) Limited | **AA-** | **Not Rated** | **Not Rated** | **Not Rated** | **Not Rated** |
| Manulife Life Insurance Company (Japan) | **AA-** | **Not Rated** | **Not Rated** | **Not Rated** | **Not Rated** |

As at February 13, 2015, S&P, Moody's, DBRS, Fitch, and A.M. Best had a stable outlook on these ratings.

# Critical Accounting and Actuarial Policies

The preparation of financial statements in accordance with IFRS requires management to make estimates and assumptions that affect the reported amounts and disclosures made in the Consolidated Financial Statements and accompanying notes. These estimates and assumptions are based on historical experience, management's assessment of current events and conditions and activities that the Company may undertake in the future as well as possible future economic events. Actual results could differ from these estimates. The estimates and assumptions described in this section depend upon subjective or complex judgments about matters that may be uncertain and changes in these estimates and assumptions could materially impact the Consolidated Financial Statements.

Our significant accounting policies are described in note 1 to the Consolidated Financial Statements. Significant estimation processes relate to the determination of insurance and investment contract liabilities, assessment of relationships with other entities for consolidation, fair value of certain financial instruments, derivatives and hedge accounting, provisioning for asset impairment, determination of pension and other post-employment benefit obligations and expenses, income taxes and uncertain tax positions, valuation and impairment of goodwill and intangible assets and the measurement and disclosure of contingent liabilities as described below. In addition, in the determination of the fair values of invested assets, where observable market data is not available, management applies judgment in the selection of valuation models.

**Policy Liabilities (Insurance and Investment Contract Liabilities)**
Policy liabilities for IFRS are valued under standards established by the Actuarial Standards Board. These standards are designed to ensure we establish an appropriate liability on the Consolidated Statements of Financial Position to cover future obligations to all our policyholders. Under IFRS, the assumptions underlying the valuation of policy liabilities are required to be reviewed and updated on an ongoing basis to reflect recent and emerging trends in experience and changes in risk profile of the business. In conjunction with prudent business practices to manage both product and asset related risks, the selection and monitoring of appropriate valuation assumptions is designed to minimize our exposure to measurement uncertainty related to policy liabilities.

**Determination of Policy Liabilities**
Policy liabilities have two major components: a best estimate amount and a provision for adverse deviation. The best estimate amount represents the estimated value of future policyholder benefits and settlement obligations to be paid over the term remaining on in-force policies, including the costs of servicing the policies. The best estimate amount is reduced by the future expected policy revenues and future expected investment income on assets supporting the policies, before any consideration for reinsurance ceded. To determine the best estimate amount, assumptions must be made for a number of key factors, including future mortality and morbidity rates, investment returns, rates of policy termination, operating expenses, certain taxes (other than income taxes) and foreign currency. Reinsurance is used to transfer part or all of a policy liability to another insurance company at terms negotiated with that insurance company. A separate asset for reinsurance ceded is calculated based on the terms of the reinsurance treaties that are in force, with deductions taken for the credit standing of the reinsurance counterparties where appropriate.

To recognize the uncertainty involved in determining the best estimate actuarial liability assumptions, a provision for adverse deviation ("PfAD") is established. The PfAD is determined by including a margin of conservatism for each assumption to allow for possible mis-estimation of, or deterioration in, future experience in order to provide greater comfort that the policy liabilities will be sufficient to pay future benefits. The Canadian Institute of Actuaries establishes suggested ranges for the level of margins for adverse deviation based on the risk profile of the business. Our margins are set taking into account the risk profile of our business. The effect of these margins is to increase policy liabilities over the best estimate assumptions. The margins for adverse deviation decrease the income that is recognized at the time a new policy is sold and increase the income recognized in later periods as the margins release as the remaining policy risks reduce.

**Best Estimate Assumptions**
We follow established processes to determine the assumptions used in the valuation of our policy liabilities. The nature of each risk factor and the process for setting the assumptions used in the valuation are discussed below.

**Mortality**
Mortality relates to the occurrence of death. Mortality assumptions are based on our internal as well as industry past and emerging experience and are differentiated by sex, underwriting class, policy type and geographic market. We make assumptions about future mortality improvements using historical experience derived from population data. Reinsurance is used to offset some of our direct mortality exposure on in-force life insurance policies with the impact of the reinsurance directly reflected in our policy valuation. Actual mortality experience is monitored against these assumptions separately for each business. Where mortality rates are lower than assumed for life insurance, the result is favourable, and where mortality rates are higher than assumed for payout annuities, mortality results are favourable. Overall 2014 experience was favourable when compared with our assumptions. Changes to future expected mortality assumptions in the policy liabilities in 2014 resulted in a decrease in net policy liabilities.

**Morbidity**
Morbidity relates to the occurrence of accidents and sickness for the insured risks. Morbidity assumptions are based on our internal as well as industry past and emerging experience and are established for each type of morbidity risk and geographic market. For our Long-Term Care business we make assumptions about future morbidity improvements. Actual morbidity experience is monitored

against these assumptions separately for each business. Our morbidity risk exposure relates to future expected claims costs for long-term care insurance, as well as for group benefits and certain individual health insurance products we offer. Overall 2014 experience was unfavourable when compared with our assumptions. Changes to future expected morbidity assumptions in the policy liabilities in 2014 resulted in a decrease in net policy liabilities.

### Property and Casualty

Our Property and Casualty Reinsurance business insures against losses from natural and human disasters and accidental events. Policy liabilities are held for incurred claims not yet reported, for claims reported but not yet paid and for expected future claims related to premiums paid to date. Both our 2013 and 2014 claims loss experience was favourable with respect to the provisions that were established.

### Policy Termination and Premium Persistency

Policy termination includes lapses and surrenders, where lapses represent the termination of policies due to non-payment of premiums and surrenders represent the voluntary termination of policies by policyholders. Premium persistency represents the level of ongoing deposits on contracts where there is policyholder discretion as to the amount and timing of deposits. Policy termination and premium persistency assumptions are primarily based on our recent experience adjusted for expected future conditions. Assumptions reflect differences by type of contract within each geographic market and actual experience is monitored against these assumptions separately for each business. Overall 2014 experience was unfavourable when compared with our assumptions. Changes to future expected policy termination assumptions in the policy liabilities in 2014 resulted in an increase in net policy liabilities.

### Expenses and Taxes

Operating expense assumptions reflect the projected costs of maintaining and servicing in-force policies, including associated overhead expenses. The expenses are derived from internal cost studies and are projected into the future with an allowance for inflation. For some developing businesses, there is an expectation that unit costs will decline as these businesses mature. Actual expenses are monitored against assumptions separately for each business. Overall maintenance expenses for 2014 were unfavourable when compared with our assumptions. Taxes reflect assumptions for future premium taxes and other non-income related taxes. For income taxes, policy liabilities are adjusted only for temporary tax timing and permanent tax rate differences on the cash flows available to satisfy policy obligations.

### Investment Returns

We segment assets to support liabilities by business segment and geographic market and establish investment strategies for each liability segment. The projected cash flows from these assets are combined with projected cash flows from future asset purchases/sales to determine expected rates of return for future years. The investment strategies for future asset purchases and sales are based on our target investment policies for each segment and the re-investment returns are derived from current and projected market rates for fixed interest investments and our projected outlook for non-fixed interest assets. Credit losses are projected based on our own and industry experience, as well as specific reviews of the current investment portfolio. Investment return assumptions for each asset class also incorporate expected investment management expenses that are derived from internal cost studies. In 2014, actual investment returns were favourable (2013 – favourable) when compared with our assumptions. The impact of investment experience, excluding variable annuities, on reserves exceeded valuation expectations (2013 – exceeded) primarily due to the impact of changes in interest rates, including increases in corporate spreads and decreases in swap spreads, gains from asset trading including origination, favourable private equity returns, and favourable credit experience, partially offset by unfavourable oil and gas and real estate returns.

### Segregated Funds

We offer segregated funds to policyholders that offer certain guarantees, including guaranteed returns of principal on maturity or death, as well as guarantees of minimum withdrawal amounts or income benefits. The on-balance sheet liability for these benefits is the expected cost of these guarantees including appropriate valuation margins for the various contingencies including mortality and lapse. The most dominant assumption is the return on the underlying funds in which the policyholders invest. This risk is mitigated through a dynamic hedging strategy. In 2014, pre-tax experience on assets underlying segregated fund business which has guarantees due to changes in market value of assets under management was unfavourable for both the business that is hedged and the business that is not hedged. The latter excludes the experience on the macro equity hedges. Note that an unchanged market or an increase of less than our expected returns will still result in an earnings loss, since actual returns would not meet the expected returns in the valuation models.

### Foreign Currency

Foreign currency risk results from a mismatch of the currency of the policy liabilities and the currency of the assets designated to support these obligations. We generally match the currency of our assets with the currency of the liabilities they support, with the objective of mitigating the risk of loss arising from movements in currency exchange rates. Where a currency mismatch exists, the assumed rate of return on the assets supporting the liabilities is reduced to reflect the potential for adverse movements in exchange rates.

### Experience Adjusted Products

Where policies have features that allow the impact of changes in experience to be passed on to policyholders through policy dividends, experience rating refunds, credited rates or other adjustable features, the projected policyholder benefits are adjusted to reflect the projected experience. Minimum contractual guarantees and other market considerations are taken into account in determining the policy adjustments.

### Provision for Adverse Deviation

The aggregate provision for adverse deviation is the sum of the provisions for adverse deviation for each risk factor. Margins for adverse deviation are established by product type and geographic market for each assumption or factor used in the determination of the best estimate actuarial liability. The margins are established based on the risk characteristics of the business being valued.

Margins for interest rate risk are included by testing a number of scenarios of future interest rates. The margin can be established by testing a limited number of scenarios, some of which are prescribed by Canadian Actuarial Standards of Practice, and determining the liability based on the worst outcome. Alternatively the margin can be set by testing many scenarios, which are developed according to actuarial guidance. Under this approach the liability would be the average of the outcomes above a percentile in the range prescribed by the Canadian Actuarial Standards of Practice.

In addition to the explicit margin for adverse deviation, the valuation basis for segregated fund liabilities explicitly limits the future revenue recognition in the valuation basis to the amount necessary to offset acquisition expenses, after allowing for the cost of any guarantee features. The fees that are in excess of this limitation are reported as an additional margin and are shown in segregated fund non-capitalized margins.

The provision for adverse deviation and the future revenue deferred in the valuation due to the limitations on recognition of future revenue in the valuation of segregated fund liabilities are shown in the table below.

| **As at December 31,**<br>**(C$ millions)** | **2014** | 2013 |
|---|---|---|
| **Best estimate actuarial liability** | **$ 160,990** | $ 133,463 |
| **Provision for adverse deviation** | | |
| Insurance risks (mortality/morbidity) | **$ 12,234** | $ 11,000 |
| Policyholder behaviour (lapse/surrender/premium persistency) | **3,619** | 3,107 |
| Expenses | **1,981** | 1,651 |
| Investment risks (non-credit) | **22,430** | 17,861 |
| Investment risks (credit) | **1,315** | 1,323 |
| Segregated funds guarantees | **2,106** | 1,586 |
| Other | **–** | 11 |
| **Total provision for adverse deviation (“PfAD”)**[1] | **$ 43,685** | $ 36,539 |
| **Segregated funds – additional margins** | **7,877** | 8,160 |
| **Total of PfAD and additional segregated fund margins** | **$ 51,562** | $ 44,699 |

(1) Reported actuarial liabilities as at December 31, 2014 of $204,675 million (2013 – $170,002 million) are composed of $160,990 million (2013 – $133,463 million) of best estimate actuarial liability and $43,685 million (2013 – $36,539 million) of PfAD.

The change in the PfAD from period to period is impacted by changes in liability and asset composition, by movements in currency and movements in interest rates and by material changes in valuation assumptions. The overall increase in PfAD was for insurance risks and policyholder behaviour was primarily due to the appreciation of the U.S. dollar relative to the Canadian dollar, our review of valuation assumptions and methods, and the decline in interest rate during the year. The overall increase in PfAD for non-credit investment risks was primarily due to the implementation of the revised Canadian Actuarial Standards of Practice related to economic reinvestment assumptions, the decline in interest rates during the year, and the appreciation of the U.S. dollar relative to the Canadian dollar.

### Sensitivity of Earnings to Changes in Assumptions

When the assumptions underlying our determination of policy liabilities are updated to reflect recent and emerging experience or change in outlook, the result is a change in the value of policy liabilities which in turn affects net income attributed to shareholders. The sensitivity of net income attributed to shareholders to changes in non-economic and certain asset related assumptions underlying policy liabilities is shown below, and assumes that there is a simultaneous change in the assumptions across all business units.

For changes in asset related assumptions, the sensitivity is shown net of the corresponding impact on income of the change in the value of the assets supporting liabilities. In practice, experience for each assumption will frequently vary by geographic market and business, and assumption updates are made on a business/geographic specific basis. Actual results can differ materially from these estimates for a variety of reasons including the interaction among these factors when more than one changes, changes in actuarial and investment return and future investment activity assumptions, actual experience differing from the assumptions, changes in business mix, effective tax rates and other market factors, and the general limitations of our internal models.

### Potential impact on net income attributed to shareholders arising from changes to non-economic assumptions[1]

| As at December 31,<br>(C$ millions) | Decrease in net income attributable to shareholders | |
|---|---|---|
| | **2014** | 2013 |
| **Policy related assumptions** | | |
| 2% adverse change in future mortality rates[2],[4] | | |
| Products where an increase in rates increases insurance contract liabilities | **$ (300)** | $ (300) |
| Products where a decrease in rates increases insurance contract liabilities | **(400)** | (300) |
| 5% adverse change in future morbidity rates[3],[4],[5] | **(2,400)** | (2,000) |
| 10% adverse change in future termination rates[4] | **(1,500)** | (1,300) |
| 5% increase in future expense levels | **(400)** | (300) |

[1] The participating policy funds are largely self-supporting and generate no material impact on net income attributed to shareholders as a result of changes in non-economic assumptions.

[2] An increase in mortality rates will generally increase policy liabilities for life insurance contracts whereas a decrease in mortality rates will generally increase policy liabilities for policies with longevity risk such as payout annuities.

[3] No amounts related to morbidity risk are included for policies where the policy liability provides only for claims costs expected over a short period, generally less than one year, such as Group Life and Health.

[4] The impacts of the sensitivities on LTC for morbidity, mortality and lapse are assumed to be moderated by partial offsets from the Company's ability to contractually raise premium rates in such events, subject to state regulatory approval.

[5] The increase in morbidity sensitivity between December 31, 2013 and December 31, 2014 is largely due to modeling refinements and the strengthening of the U.S. dollar compared to the Canadian dollar during 2014. This sensitivity is shown in Canadian dollars and most of our morbidity sensitivity arises from U.S. dollar denominated liabilities.

### Potential impact on net income attributed to shareholders arising from changes to asset related assumptions supporting actuarial liabilities

| As at<br>(C$ millions) | Increase (decrease) in after-tax income | | | |
|---|---|---|---|---|
| | **December 31, 2014** | | December 31, 2013 | |
| | Increase | Decrease | Increase | Decrease |
| **Asset related assumptions updated periodically in valuation basis changes** | | | | |
| 100 basis point change in future annual returns for public equities[1] | **$ 300** | **$ (300)** | $ 400 | $ (400) |
| 100 basis point change in future annual returns for ALDA[2] | **2,500** | **(3,100)** | 3,800 | (3,700) |
| 100 basis point change in equity volatility assumption for stochastic segregated fund modelling[3] | **(200)** | **200** | (200) | 200 |

[1] The sensitivity to public equity returns above includes the impact on both segregated fund guarantee reserves and on other policy liabilities. For a 100 basis point increase in expected growth rates, the impact from segregated fund guarantee reserves is a $100 million increase (December 31, 2013 – $200 million increase). For a 100 basis point decrease in expected growth rates, the impact from segregated fund guarantee reserves is a $100 million decrease (December 31, 2013 – $200 million decrease). Expected long-term annual market growth assumptions for public equities pre-dividends for key markets are based on long-term historical observed experience and compliance with actuarial standards. The pre-dividend growth rates for returns in the major markets used in the stochastic valuation models for valuing segregated fund guarantees are 7.6% per annum in Canada, 7.6% per annum in the U.S. and 5.2% per annum in Japan. Growth assumptions for European equity funds are market-specific and vary between 5.8% and 7.85%.

[2] Alternative long-duration assets include commercial real estate, timber and agricultural real estate, oil and gas, and private equities. The reduction of $600 million in sensitivity to a decrease from December 31, 2013 to December 31, 2014 is primarily related to updates to actuarial standards related to economic reinvestment assumptions.

[3] Volatility assumptions for public equities are based on long-term historical observed experience and compliance with actuarial standards. The resulting volatility assumptions are 17.15% per annum in Canada and 17.15% per annum in the U.S. for large cap public equities, and 19% per annum in Japan. For European equity funds, the volatility varies between 16.25% and 18.4%.

## Review of Actuarial Methods and Assumptions

A comprehensive review of actuarial methods and assumptions is performed annually. The review is designed to reduce the Company's exposure to uncertainty by ensuring assumptions for both asset related and liability related risks remain appropriate. This is accomplished by monitoring experience and selecting assumptions which represent a current best estimate view of expected future experience, and margins that are appropriate for the risks assumed. While the assumptions selected represent the Company's current best estimates and assessment of risk, the ongoing monitoring of experience and changes in the economic environment are likely to result in future changes to the valuation assumptions, which could be material.

The 2014 full year review of actuarial methods and assumptions resulted in an increase in insurance and investment contract liabilities of $258 million, net of reinsurance. Net of the income attributed to participating policyholders and non-controlling interests, net income attributed to shareholders decreased by $198 million.

**For the year ended December 31, 2014**
(C$ millions)

| Assumption | Change in: Gross insurance and investment contract liabilities | Net insurance and investment contract liabilities | Net income attributed to shareholders |
|---|---|---|---|
| Mortality and morbidity updates | $ (127) | $ (74) | $ 73 |
| Lapses and policyholder behaviour | 455 | 405 | (314) |
| Updates to actuarial standards | | | |
| Segregated fund bond calibration | 219 | 217 | (157) |
| Economic reinvestment assumptions | (530) | (75) | 65 |
| Other updates | (384) | (215) | 135 |
| **Net impact** | **$ (367)** | **$ 258** | **$ (198)** |

## Updates to mortality and morbidity

Mortality assumptions were updated across several business units to reflect recent experience. Updates to the Canadian Retail Insurance mortality led to a $248 million increase in net income attributed to shareholders. Other mortality and morbidity updates led to a $135 million increase in net income attributed to shareholders, and were primarily from the U.S. Annuity business where in aggregate the Company benefited from updates to mortality assumptions. These were partially offset by updates in U.S. Life insurance, primarily for policies issued at older ages, which led to a $310 million decrease in net income attributed to shareholders.

## Updates to lapses and policyholder behaviour

Lapse rates for several of the Canadian Retail Insurance non-participating whole life and universal life products were updated to reflect recent experience which led to a $214 million decrease in net income attributed to shareholders.

Other updates to lapse and policyholder behaviour assumptions were made across several business units including Indonesia, and Canadian and U.S. variable annuities to reflect updated experience results which led to a $100 million decrease in net income attributed to shareholders.

## Updates to actuarial standards

Updates to actuarial standards related to bond parameter calibration for stochastic models used to value segregated fund liabilities resulted in a $157 million decrease in net income attributed to shareholders.

Updates to actuarial standards related to economic reinvestment assumptions resulted in a $65 million increase in net income attributed to shareholders. The impact of the introduction of a new margin for adverse deviation where policy liabilities are supported by ALDA or public equities, was offset by the benefit from changes to the methodology used to develop the risk free interest rate scenarios used in our policy liability calculations and the removal of the restriction on usage of credit spread assets.

## Other updates

The Company performed an in depth review of the modelling of future tax cash flows for its U.S. Insurance business and this review resulted in improvements to the modeling resulting in an increase in net income attributed to shareholders of $473 million.

The Company made a number of model refinements related to the projection of both asset and liability cash flows across several business units which led to a $338 million decrease in net income attributed to shareholders.

## Change in net insurance contract liabilities

The change in net insurance contract liabilities can be attributed to several sources: new business, acquisitions, in-force movement and currency impact. Changes in net insurance contract liabilities are substantially offset in the financial statements by premiums, investment income, policy benefits and other policy related cash flows. The changes in net insurance contract liabilities by business segment are shown below:

### 2014 Net Insurance Contract Liability Movement Analysis

| **For the year ended December 31, 2014** (C$ millions) | Asia Division | Canadian Division | U.S. Division | Corporate and Other | Total |
|---|---|---|---|---|---|
| Balance, January 1 | $ 27,447 | $ 49,103 | $ 99,342 | $ (93) | $ 175,799 |
| New business[(1)] | 134 | (43) | 716 | – | 807 |
| In-force movement[(1)] | 5,329 | 5,610 | 12,905 | (256) | 23,588 |
| Changes in methods and assumptions[(1)] | (85) | (188) | 511 | 20 | 258 |
| Currency Impact | 837 | 6 | 9,715 | (22) | 10,536 |
| **Balance, December 31** | **$ 33,662** | **$ 54,488** | **$ 123,189** | **$ (351)** | **$ 210,988** |

[(1)] In 2014, the $24,691 million increase reported as the change in insurance contract liabilities, and change in reinsurance assets on the Consolidated Statements of Income primarily consists of changes due to normal in-force movement, new policies and changes in methods and assumptions. These three items in the net insurance contract liabilities column of this table net to an increase of $24,653 million, of which $24,426 million is included in the income statement increase in insurance contract liabilities and change in reinsurance asset, and $227 million is included in net claims and benefits. The income statement change in insurance contract liabilities also includes the change in embedded derivatives associated with insurance contract.

For new business, the segments with large positive general account premium revenue at contract inception show increases in policy liabilities. For segments where new business deposits are primarily into segregated funds, the increase in policy liabilities related to new business is small since the increase measures only general account liabilities. New business policy liability impact is negative when estimated future premiums, together with future investment income, are expected to be more than sufficient to pay estimated future benefits, policyholder dividends and refunds, taxes (excluding income taxes) and expenses on new policies issued.

The net in-force movement over the year was an increase of $23,588 million. A material part of the in-force movement increase was due to the decrease in interest rates and the resulting impact on the fair value of assets which back those policy liabilities.

The increase of $258 million from changes in methods and assumptions resulted in a decrease in pre-tax earnings.

Of the $24,395 million net increase in insurance contract liabilities related to new business and in-force movement, $24,186 million was an increase in actuarial liabilities. The remaining amount was an increase of $209 million in other insurance contract liabilities.

The increase in policy liabilities from currency impact reflects the depreciation of the Canadian dollar relative to the U.S. dollar and Hong Kong dollar, partially offset by the appreciation of the Canadian dollar relative to the Japanese yen. To the extent assets are currency matched to liabilities, the increase in insurance contract liabilities due to currency impact is offset by a corresponding increase from currency impact in the value of assets supporting those liabilities.

**2013 Net Insurance Contract Liability Movement Analysis**

| **For the year ended December 31, 2013** (C$ millions) | Asia Division | Canadian Division | U.S. Division | Corporate and Other | Total |
|---|---|---|---|---|---|
| Balance, January 1 | $ 27,971 | $ 50,609 | $ 101,300 | $ (166) | $ 179,714 |
| New Business[1] | 150 | (73) | 1,104 | – | 1,181 |
| In-force movement[1] | 1,167 | (1,788) | (10,329) | (64) | (11,014) |
| Impact of sale of Taiwan Business | (1,535) | – | – | – | (1,535) |
| Changes in methods and assumptions[1] | (36) | 352 | 488 | 147 | 951 |
| Currency Impact | (270) | 3 | 6,779 | (10) | 6,502 |
| Balance, December 31 | $ 27,447 | $ 49,103 | $ 99,342 | $ (93) | $ 175,799 |

[1] In 2013 the $8,604 million decrease reported as the change in insurance contract liabilities and change in reinsurance assets on the Consolidated Statements of Income primarily consists of changes due to normal in-force movement, new policies and changes in methods and assumptions. These three items in the net insurance contract liabilities column of this table net to a decrease of $8,882 million, of which $8,661 million is included in the income statement increase in insurance contract liabilities and change in reinsurance assets, and $221 million is included in net claims and benefits. The Consolidated Statements of Income change in insurance contract liabilities also includes the change in embedded derivatives associated with insurance contracts.

For new business, the segments with large positive general account premium revenue at contract inception show increases in policy liabilities. For segments where new business deposits are primarily into segregated funds, the increase in policy liabilities related to new business is small since the increase measures only general account liabilities. New business policy liability impact is negative when estimated future premiums, together with future investment income, are expected to be more than sufficient to pay estimated future benefits, policyholder dividends and refunds, taxes (excluding income taxes) and expenses on new policies issued.

The net in-force movement over the year was a decrease of $11,014 million. A material part of the in-force movement decrease was due to a decrease in guarantees associated with policyholder liabilities for segregated fund products due to the increase in equity markets, and the increase in interest rates and the resulting impact on the fair value of assets which back those policy liabilities.

The increase of $951 million from changes in methods and assumptions resulted in a decrease in pre-tax earnings.

Of the $9,833 million net decrease in insurance contract liabilities related to new business and in-force movement, $9,784 million was a decrease in actuarial liabilities. The remaining amount was a decrease of $49 million in other insurance contract liabilities.

The increase in policy liabilities from currency impact reflects the depreciation of the Canadian dollar relative to the U.S. dollar, partially offset by the appreciation of the Canadian dollar relative to the Japanese yen. To the extent assets are currency matched to liabilities, the increase in insurance contract liabilities due to currency impact is offset by a corresponding increase from currency impact in the value of assets supporting those liabilities.

## Consolidation

The Company is required to consolidate the financial position and results of entities it controls. Control exists when the Company:

1) has the power to govern the financial and operating policies of the entity,
2) is exposed to a significant portion of the entity's variable returns, and
3) is able to use its power to influence variable returns from the entity.

The Company uses the same principles to assess control over any entity it is involved with. In evaluating control, potential factors assessed include the effects of:

1) substantive potential voting rights that are currently exercisable or convertible,
2) contractual management relationships with the entity,
3) rights and obligations resulting from policyholders to manage investments on their behalf, and
4) the effect of any legal or contractual restraints on the Company from using its power to affect its variable returns from the entity.

An assessment of control is based on arrangements in place and the assessed risk exposures at inception. Initial evaluations are reconsidered at a later date if:

1) the Company acquires additional interests in the entity or its interests in an entity are diluted,
2) the contractual arrangements of the entity are amended such that the Company's involvement with the entity changes, or
3) the Company's ability to use its power to affect its variable returns from the entity changes.

Subsidiaries are consolidated from the date on which control is obtained by the Company and cease to be consolidated from the date that control ceases.

### Fair Value of Invested Assets

A large portion of the Company's invested assets are recorded at fair value. Refer to note 1 to the 2014 Consolidated Financial Statements for a description of the methods used in determining fair values. When quoted prices in active markets are not available for a particular investment, significant judgment is required to determine an estimated fair value based on market standard valuation methodologies including discounted cash flow methodologies, matrix pricing, consensus pricing services, or other similar techniques. The inputs to these market standard valuation methodologies include, but are not limited to: current interest rates or yields for similar instruments, credit rating of the issuer or counterparty, industry sector of the issuer, coupon rate, call provisions, sinking fund requirements, tenor (or expected tenor) of the instrument, management's assumptions regarding liquidity, volatilities and estimated future cash flows. Accordingly, the estimated fair values are based on available market information and management's judgments about the key market factors impacting these financial instruments. Financial markets are susceptible to severe events evidenced by rapid depreciation in asset values accompanied by a reduction in asset liquidity. The Company's ability to sell assets, or the price ultimately realized for these assets, depends upon the demand and liquidity in the market and increases the use of judgment in determining the estimated fair value of certain assets.

### Evaluation of Invested Asset Impairment

AFS fixed income and equity securities are carried at fair market value, with changes in fair value recorded in Other Comprehensive Income ("OCI") with the exception of unrealized gains and losses on foreign currency translation of AFS fixed income securities which are included in net income attributed to shareholders. Securities are reviewed on a regular basis and any fair value decrement is transferred out of Accumulated Other Comprehensive Income ("AOCI") and recorded in net income attributed to shareholders when it is deemed probable that the Company will not be able to collect all amounts due according to the contractual terms of a fixed income security or when fair value of an equity security has declined significantly below cost or for a prolonged period of time.

Provisions for impairments of mortgage loans and private placement loans are recorded with losses reported in earnings when there is no longer reasonable assurance as to the timely collection of the full amount of the principal and interest.

Significant judgment is required in assessing whether an impairment has occurred and in assessing fair values and recoverable values. Key matters considered include economic factors, company and industry specific developments, and specific issues with respect to single issuers and borrowers.

Changes in circumstances may cause future assessments of asset impairment to be materially different from current assessments, which could require additional provisions for impairment. Additional information on the process and methodology for determining the allowance for credit losses is included in the discussion of credit risk in note 10 to the 2014 Consolidated Financial Statements.

### Derivative Financial Instruments

The Company uses derivative financial instruments ("derivatives") including swaps, forwards and futures agreements, and options to manage current and anticipated exposures to changes in interest rates, foreign exchange rates, commodity prices and equity market prices, and to replicate permissible investments. Refer to note 5 to the 2014 Consolidated Financial Statements for a description of the methods used to determine the fair value of derivatives.

The accounting for derivatives is complex and interpretations of the primary accounting guidance continue to evolve in practice. Judgment is applied in determining the availability and application of hedge accounting designations and the appropriate accounting treatment under such accounting guidance. Differences in judgment as to the availability and application of hedge accounting designations and the appropriate accounting treatment may result in a differing impact on the Consolidated Financial Statements of the Company from that previously reported. Assessments of hedge effectiveness and measurements of ineffectiveness of hedging relationships are also subject to interpretations and estimations. If it was determined that hedge accounting designations were not appropriately applied, reported net income attributed to shareholders could be materially affected.

### Employee Future Benefits

The Company maintains a number of plans providing pension (defined benefit and defined contribution) and other post-employment benefits to eligible employees and agents after employment. The largest of these – the defined benefit pension and retiree welfare plans in the U.S. and Canada – are the material plans that are discussed herein and are the subject of the disclosures in note 17 to the 2014 Consolidated Financial Statements.

Due to the long-term nature of defined benefit pension and retiree welfare plans, the calculation of the defined benefit obligation and net benefit cost depends on various assumptions such as discount rates, salary increase rates, cash balance interest crediting rates, health care cost trend rates and rates of mortality. These assumptions are determined by management and are reviewed annually.

Changes in assumptions and differences between actual and expected experience give rise to actuarial gains and losses that affect the amount of the defined benefit obligation and OCI. During 2014, the actual experience resulted in a loss of $62 million (2013 – gain of $274 million) for the defined benefit pension plans and a loss of $5 million (2013 – gain of $69 million) for the retiree welfare plans. The aggregate loss of $67 million (2013 – gain of $343 million) was fully recognized in OCI in 2014. The key assumptions, as well as the sensitivity of the defined benefit obligation to these assumptions, are presented in note 17 to the 2014 Consolidated Financial Statements.

Contributions to the broad based defined benefit pension plans are made in accordance with the regulations in the countries in which the plans are offered. During 2014, the Company contributed $17 million (2013 – $21 million) to these plans. As at December 31, 2014, the difference between the fair value of assets and the defined benefit obligation for these plans was a surplus of $156 million (2013 – $137 million). For 2015, the contributions to the plans are expected to be approximately $34 million.[21]

The Company's supplemental pension plans for executives are not funded; benefits under these plans are paid as they become due. During 2014, the Company paid benefits of $60 million (2013 – $61 million) under these plans. As at December 31, 2014, the defined benefit obligation amounted to $803 million (2013 – $713 million).

The Company's retiree welfare plans are partially funded, although there are no regulations or laws governing or requiring the funding of these plans. As at December 31, 2014, the difference between the fair value of plan assets and the defined benefit obligation was a deficit of $110 million (2013 – $133 million).

For further details on the defined benefit obligation and net benefit cost for these plans, refer to note 17 to the 2014 Consolidated Financial Statements.

### Income Taxes

The Company is subject to income tax laws in various jurisdictions. Tax laws are complex and potentially subject to different interpretations by the taxpayer and the relevant tax authority. The provision for income taxes represents management's interpretation of the relevant tax laws and its estimate of current and future income tax implications of the transactions and events during the period. A deferred tax asset or liability results from temporary differences between carrying values of the assets and liabilities and their respective tax basis. Deferred tax assets and liabilities are recorded based on expected future tax rates and management's assumptions regarding the expected timing of the reversal of such temporary differences. The realization of deferred tax assets depends upon the existence of sufficient taxable income within the carryback or carry forward periods under the tax law in the applicable tax jurisdiction. A deferred tax asset is recognized to the extent that future realization of the tax benefit is probable. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the tax benefit will be realized. Factors in management's determination include, among other things, the following:

a) future taxable income exclusive of reversing temporary differences and carry forwards;
b) future reversals of existing taxable temporary differences;
c) taxable income in prior carryback years; and
d) tax planning strategies.

The Company may be required to change its provision for income taxes if the ultimate deductibility of certain items is successfully challenged by taxing authorities or if estimates used in determining the amount of deferred tax assets to recognize change significantly, or when receipt of new information indicates the need for adjustment in the recognition of deferred tax assets. Additionally, future events, such as changes in tax laws, tax regulations, or interpretations of such laws or regulations, could have an impact on the provision for income tax, deferred tax balances and the effective tax rate. Any such changes could significantly affect the amounts reported in the Consolidated Financial Statements in the year these changes occur.

The Company is an investor in a number of leasing transactions and had established provisions for disallowance of the tax treatment and for interest on past due taxes. On August 5, 2013, the U.S. Tax Court issued an opinion effectively ruling in the government's favour in the litigation between John Hancock and the Internal Revenue Service involving the tax treatment of leveraged leases. The Company was fully reserved for this result, and the case had no material impact on the Company's 2014 financial results.

### Goodwill and Intangible Assets

Under IFRS, goodwill is tested at the cash generating unit level ("CGU") or group of CGUs level. A CGU comprises the smallest group of assets that are capable of generating largely independent cash flows and is either a business segment or a level below. The tests performed in 2014 demonstrated that there was no impairment of goodwill or intangible assets with indefinite lives. Change in the discount rates and cash flow projections used in the determination of embedded values or reductions in market-based earnings multiples may result in impairment charges in the future, which could be material.

Impairment charges could occur in the future as a result of changes in economic conditions. The goodwill testing for 2015 will be updated based on the conditions that exist in 2015 and may result in impairment charges, which could be material.[21]

### Future Accounting and Reporting Changes

There are a number of new accounting and reporting changes issued under IFRS including those still under development by the International Accounting Standards Board ("IASB") that will impact the Company beginning in 2015 and subsequently. Summaries of each of the most recently issued key accounting standards are presented below.

[21] See "Caution regarding forward-looking statements" above.

**(i) Amendments to IAS 19 "Employee Benefits"**
The amendments to IAS 19 "Employee Benefits" were issued in November 2013 and are effective for years beginning on or after January 1, 2015, to be applied retrospectively. The amendments clarify the accounting for contributions by employees or third parties to defined benefit plans. Adoption of these amendments is not expected to have a significant impact on the Company's Consolidated Financial Statements.

**(ii) Annual Improvements 2010 – 2012 and 2011 – 2013 Cycles**
Annual Improvements 2010-2012 and 2011-2013 Cycles were issued in December 2013 and are effective for years beginning on or after January 1, 2015. The IASB issued 10 minor amendments to different standards as part of the Annual Improvements process, with some amendments to be applied prospectively and others to be applied retrospectively. Adoption of the amendments which are applicable for the Company is not expected to have a significant impact on the Company's Consolidated Financial Statements.

**(iii) Amendments to IAS 16 "Property, Plant and Equipment" and IAS 38 "Intangible Assets"**
Amendments to IAS 16 "Property, Plant and Equipment" and IAS 38 "Intangible Assets" were issued in May 2014 and are effective for years beginning on or after January 1, 2016, to be applied prospectively. The amendments clarify that the depreciation or amortization of assets accounted for under these two standards should reflect a pattern of consumption of the assets rather than reflect economic benefits expected to be generated from the assets. The Company is assessing the impact of these amendments.

**(iv) Amendments to IFRS 11 "Joint Arrangements"**
Amendments to IFRS 11 "Joint Arrangements" were issued in May 2014 and are effective for years beginning on or after January 1, 2016, to be applied prospectively. The amendments clarify that an acquisition of a joint interest in a joint operation that is a business should be accounted for and disclosed as a business combination in accordance with IFRS 3 "Business Combinations". Adoption of these amendments is not expected to have a significant impact on the Company's Consolidated Financial Statements.

**(v) Amendments to IAS 41 "Agriculture" and IAS 16 "Property, Plant and Equipment"**
Amendments to IAS 41 "Agriculture" and IAS 16 "Property, Plant and Equipment" were issued in June 2014 and are effective for years beginning on or after January 1, 2016, to be applied retrospectively. These amendments require that bearer plants should be considered as property, plant and equipment in the scope of IAS 16 and should be measured either at cost or revalued amount with changes recognized in OCI. Currently these plants are in the scope of IAS 41 and are measured at fair value less cost to sell. A bearer plant is used in the production of agricultural produce and is not intended to be sold as a living plant except for incidental scrap sales. These amendments only apply to the accounting requirements of a bearer plant and not agricultural land properties. Adoption of these amendments is not expected to have a significant impact on the Company's Consolidated Financial Statements.

**(vi) Amendments to IFRS 10 "Consolidated Financial Statements" and IAS 28 "Investments in Associates and Joint Ventures"**
Amendments to IFRS 10 "Consolidated Financial Statements" and IAS 28 "Investments in Associates and Joint Ventures" were issued in September 2014 and are effective for years beginning on or after January 1, 2016, to be applied prospectively. The amendments require that upon loss of control of a subsidiary during its transfer to an associate or joint venture, full gain recognition on the transfer is appropriate only if the subsidiary meets the definition of a business in IFRS 3 Business Combinations. Otherwise, gain recognition is appropriate only to the extent of third party ownership of the associate or joint venture. Adoption of these amendments is not expected to have significant impact on the Company's Consolidated Financial Statements.

Additional amendments to IFRS 10 "Consolidated Financial Statements" and IAS 28 "Investments in Associates and Joint Ventures" were issued in December 2014 and are effective for years beginning on or after January 1, 2016, to be applied retrospectively. The amendments clarify the requirements when accounting for investment entities. Adoption of these amendments is not expected to have a significant impact on the Company's Consolidated Financial Statements.

**(vii) Annual Improvements 2012 – 2014 Cycle**
Annual Improvements 2012 – 2014 Cycle was issued in September 2014 and is effective for years beginning on or after January 1, 2016. The IASB issued five minor amendments to different standards as part of the Annual Improvements process, with some amendments to be applied prospectively and others to be applied retrospectively. Adoption of these amendments is not expected to have a significant impact on the Company's Consolidated Financial Statements.

**(viii) IFRS 15 "Revenue from Contracts with Customers"**
IFRS 15 "Revenue from Contracts with Customers" was issued in May 2014 and is effective for years beginning on or after January 1, 2017, to be applied retrospectively or on a modified retrospective basis. IFRS 15 clarifies revenue recognition principles, provides a robust framework for recognizing revenue and cash flows arising from contracts with customers and enhances qualitative and quantitative disclosure requirements. IFRS 15 does not apply to insurance contracts, financial instruments and lease contracts. Accordingly, the adoption of IFRS 15 may impact the revenue recognition related to the Company's asset management and service contracts and will result in additional financial statement disclosure. The Company is assessing the impact of this standard.

### (ix) IFRS 9 "Financial Instruments"

IFRS 9 "Financial Instruments" was issued in November 2009 and amended in October 2010, November 2013 and July 2014, and is effective for years beginning on or after January 1, 2018, to be applied retrospectively, or on a modified retrospective basis. It is intended to replace IAS 39 "Financial Instruments: Recognition and Measurement". The project has been divided into three phases: classification and measurement, impairment of financial assets, and hedge accounting. IFRS 9's current classification and measurement methodology provides that financial assets are measured at either amortized cost or fair value on the basis of the entity's business model for managing the financial assets and the contractual cash flow characteristics of the financial assets. The classification and measurement for financial liabilities remains generally unchanged; however, revisions have been made in the accounting for changes in fair value of a financial liability attributable to changes in the credit risk of that liability. Gains or losses caused by changes in an entity's own credit risk on such liabilities are no longer recognized in profit or loss but instead are reflected in OCI.

Revisions to hedge accounting were issued in November 2013 as part of the overall IFRS 9 project. The amendment introduces a new hedge accounting model, together with corresponding disclosures about risk management activity for those applying hedge accounting. The new model represents a substantial overhaul of hedge accounting that will enable entities to better reflect their risk management activities in their financial statements.

Revisions issued in July 2014 replace the existing incurred loss model used for measuring the allowance for credit losses with an expected loss model. Changes were also made to the existing classification and measurement model designed primarily to address specific application issues raised by early adopters of the standard. They also address the income statement accounting mismatches and short-term volatility issues which have been identified as a result of the insurance contracts project. The Company is assessing the impact of these amendments.

### (x) Amendments to IAS 1 "Presentation of Financial Statements"

Amendments to IAS 1 "Presentation of Financial Statements" were issued in December 2014 and are effective for years beginning on or after January 1, 2016. The amendments clarify existing requirements relating to materiality and aggregation, along with presentation of subtotals in the financial statements. Adoption of these amendments is not expected to have a significant impact on the Company's Consolidated Financial Statements.

## Differences between IFRS and Hong Kong Financial Reporting Standards

The Consolidated Financial Statements of MFC are presented in accordance with IFRS. IFRS differs in certain respects from Hong Kong Financial Reporting Standards ("HKFRS").

The primary difference between IFRS and HKFRS is the determination of policy liabilities. In certain interest rate environments, policy liabilities determined in accordance with HKFRS may be higher than those computed in accordance with current IFRS.

## IFRS and Hong Kong Regulatory Requirements

Insurers in Hong Kong are required by the Office of the Commissioner of Insurance to meet minimum solvency requirements. As at December 31, 2014, the Company has sufficient assets to meet the minimum solvency requirements under both Hong Kong regulatory requirements and IFRS.

# Controls and Procedures

### Disclosure Controls and Procedures

Our disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed by us is recorded, processed, summarized, and reported accurately and completely and within the time periods specified under Canadian and U.S. securities laws. Our process includes controls and procedures that are designed to ensure that information is accumulated and communicated to management, including the CEO and CFO, to allow timely decisions regarding required disclosure.

As of December 31, 2014, management evaluated the effectiveness of its disclosure controls and procedures as defined under the rules adopted by the U.S. Securities and Exchange Commission and the Canadian securities regulatory authorities. This evaluation was performed under the supervision of the Audit Committee, the CEO and CFO. Based on that evaluation, the CEO and CFO concluded that our disclosure controls and procedures were effective as at December 31, 2014.

MFC's Audit Committee has reviewed this MD&A and the 2014 Consolidated Financial Statements and MFC's Board of Directors approved these reports prior to their release.

### Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control system was designed to provide reasonable assurance to management and the Board of Directors regarding the preparation and fair presentation of published financial statements in accordance with generally accepted accounting principles. All internal control systems, no matter how well designed, have inherent limitations due to manual controls. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Management maintains a comprehensive system of controls intended to ensure that transactions are executed in accordance with management's authorization, assets are safeguarded, and financial records are reliable. Management also takes steps to ensure that information and communication flows are effective and to monitor performance, including performance of internal control procedures.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2014 based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") 2013 framework in Internal Control – Integrated Framework. Based on this assessment, management believes that, as of December 31, 2014, the Company's internal control over financial reporting is effective.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2014 has been audited by Ernst & Young LLP, the Company's independent registered public accounting firm that also audited the Consolidated Financial Statements of the Company for the year ended December 31, 2014. Their report expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2014.

### Changes in Internal Control over Financial Reporting

No changes were made in our internal control over financial reporting during the year ended December 31, 2014 that have significantly affected, or are reasonably likely to significantly affect, our internal control over financial reporting.

# Performance and Non-GAAP Measures

We use a number of non-GAAP financial measures to measure overall performance and to assess each of our businesses. A financial measure is considered a non-GAAP measure for Canadian securities law purposes if it is presented other than in accordance with generally accepted accounting principles used for the Company's audited financial statements. Non-GAAP measures include: Core Earnings; Core ROE; Diluted Core Earnings per Common Share; Constant Currency Basis; EPS; Mutual Funds Assets under Management ("MF AUM"); Assets under Administration ("AUA"); Premiums and Deposits; Assets under Management ("AUM"); Capital; Embedded Value and Sales. Non-GAAP financial measures are not defined terms under GAAP and, therefore, are unlikely to be comparable to similar terms used by other issuers. Therefore, they should not be considered in isolation or as a substitute for any other financial information prepared in accordance with GAAP.

As disclosed in 3Q14, we no longer disclose U.S. GAAP measures. In the past, we elected to report consolidated U.S. GAAP information because of our large U.S. domiciled investor base and for comparison purposes with our U.S. peers. In the aftermath of the financial crisis, presenting U.S. GAAP measures highlighted the significant impact of fair value accounting on our financial statements under IFRS. In 2012, we introduced a core earnings metric which also highlights such impact. This metric has gained acceptance with our stakeholders and, therefore, we discontinued the use of consolidated U.S. GAAP information starting in 4Q14.

**Core earnings (loss)** is a non-GAAP measure which we use to better understand the long-term earnings capacity and valuation of the business. Core earnings excludes the direct impact of equity markets and interest rates as well as a number of other items, outlined below, that are considered material and exceptional in nature. While this metric is relevant to how we manage our business and offers a consistent methodology, it is not insulated from macro-economic factors which can have a significant impact.

Since we introduced this measure in 2012, we have included up to $200 million of favourable investment-related experience in core earnings per year. Recent investment-related experience has trended higher than the amount currently included in core earnings and, accordingly, we intend to increase the maximum annual amount included in core earnings to $400 million per year beginning in 2015. Any other future changes to the core earnings definition referred to below, will be disclosed.

**Items that are included in core earnings are:**

1. Expected earnings on in-force policies, including expected release of provisions for adverse deviation, fee income, margins on group business and spread business such as Manulife Bank and asset fund management.
2. Macro hedging costs based on expected market returns.
3. New business strain.
4. Policyholder experience gains or losses.
5. Acquisition and operating expenses compared with expense assumptions used in the measurement of policy liabilities.
6. Up to $200 million ($400 million beginning in 2015) of favourable investment-related experience reported in a single year, which are referred to as "core investment gains".
7. Earnings on surplus other than mark-to-market items. Gains on available-for-sale ("AFS") equities and seed money investments are included in core earnings.
8. Routine or non-material legal settlements.
9. All other items not specifically excluded.
10. Tax on the above items.
11. All tax related items except the impact of enacted or substantially enacted income tax rate changes.

**Items excluded from core earnings are:**

1. The direct impact of equity markets and interest rates and variable annuity guarantee liabilities, consisting of:
   - The earnings impact of the difference between the net increase (decrease) in variable annuity liabilities that are dynamically hedged and the performance of the related hedge assets. Our variable annuity dynamic hedging strategy is not designed to completely offset the sensitivity of insurance and investment contract liabilities to all risks or measurements associated with the guarantees embedded in these products for a number of reasons, including: provisions for adverse deviation, fund performance, the portion of the interest rate risk that is not dynamically hedged, realized equity and interest rate volatilities and changes to policyholder behaviour.
   - Gains (charges) on variable annuity guarantee liabilities not dynamically hedged.
   - Gains (charges) on general fund equity investments supporting policy liabilities and on fee income.
   - Gains (charges) on macro equity hedges relative to expected costs. The expected cost of macro hedges is calculated using the equity assumptions used in the valuation of insurance and investment contract liabilities.
   - Gains (charges) on higher (lower) fixed income reinvestment rates assumed in the valuation of insurance and investment contract liabilities, including the impact on the fixed income ultimate reinvestment rate ("URR").
   - Gains (charges) on sale of AFS bonds and open derivatives not in hedging relationships in the Corporate and Other segment.
2. Net favourable investment-related experience in excess of $200 million ($400 million beginning in 2015) per annum or net unfavourable investment-related experience on a year-to-date basis. Investment-related experience relates to fixed income trading, alternative long-duration asset returns, credit experience and asset mix changes. This favourable and unfavourable investment-related experience is a combination of reported investment experience as well as the impact of investing activities on the measurement of our policy liabilities.
3. Mark-to-market gains or losses on assets held in the Corporate and Other segment other than gains on AFS equities and seed money investments in new segregated or mutual funds.
4. Changes in actuarial methods and assumptions, excluding URR.
5. The impact on the measurement of policy liabilities of changes in product features or new reinsurance transactions, if material.
6. Goodwill impairment charges.
7. Gains or losses on disposition of a business.
8. Material one-time only adjustments, including highly unusual/extraordinary and material legal settlements or other items that are material and exceptional in nature.
9. Tax on the above items.
10. Impact of enacted or substantially enacted income tax rate changes.

**Core return on common shareholders' equity ("Core ROE") is a non-GAAP** profitability measure that presents core earnings available to common shareholders as a percentage of the capital deployed to earn the core earnings. The Company calculates Core ROE using average common shareholders' equity.

**Diluted core earnings per common share** is core earnings available to common shareholders expressed per diluted weighted average common share outstanding.

The Company also uses financial performance measures that are prepared on a **constant currency basis**, which exclude the impact of currency fluctuations and which are non-GAAP measures. Amounts stated on a constant currency basis in this report are calculated, as appropriate, using the income statement and balance sheet exchange rates effective for the fourth quarter of 2014.

**Earnings per share ("EPS") excluding transition and integration costs** is a non-GAAP measure of the Company's profitability. It shows what the earnings per common share would be excluding transition and integration costs which are one-time costs.

**Mutual Funds' assets under management ("MF AUM")** is a non-GAAP measure of the size of the Company's Canadian mutual fund business. It represents the assets managed by the Company, on behalf of mutual fund clients, on a discretionary basis for which the Company earns investment management fees.

**Assets under administration ("AUA")** is a non-GAAP measure of the size of the Company's Canadian group pension business. It represents the asset base on which the Company provides administrative services such as recordkeeping, custodial and customer reporting services.

**Premiums and deposits** is a non-GAAP measure of top line growth. The Company calculates premiums and deposits as the aggregate of (i) general fund premiums, net of reinsurance, reported as premiums on the Consolidated Statements of Income and investment contract deposits, (ii) segregated fund deposits, excluding seed money, ("deposits from policyholders"), (iii) mutual fund deposits, (iv) deposits into institutional advisory accounts, (v) premium equivalents for "administration services only" group benefit contracts ("ASO premium equivalents"), (vi) premiums in the Canadian Group Benefits reinsurance ceded agreement, and (vii) other deposits in other managed funds.

| **Premiums and deposits** | Quarterly | | Full Year Results | |
|---|---|---|---|---|
| **(C$ millions)** | **4Q 2014** | 4Q 2013 | **2014** | 2013 |
| Net premium income and investment contract deposits | **$ 4,948** | $ 4,563 | **$ 18,022** | $ 17,569 |
| Deposits from policyholders | **6,240** | 5,756 | **24,112** | 23,059 |
| Mutual fund deposits | **10,120** | 8,400 | **40,066** | 35,890 |
| Institutional advisory account deposits | **2,276** | 957 | **8,148** | 3,974 |
| ASO premium equivalents | **773** | 746 | **3,048** | 2,935 |
| Group Benefits ceded premiums | **1,023** | 1,000 | **4,130** | 4,404 |
| Other fund deposits | **132** | 114 | **475** | 419 |
| **Total premiums and deposits** | **$ 25,512** | $ 21,536 | **$ 98,001** | $ 88,250 |
| Currency impact | **–** | 1,179 | **1,667** | 5,781 |
| **Constant currency premiums and deposits** | **$ 25,512** | $ 22,715 | **$ 99,668** | $ 94,031 |

**Assets under management** is a non-GAAP measure of the size of the Company. It represents the total of the invested asset base that the Company and its customers invest in.

| **Assets under management**<br>**As at December 31,**<br>**(C$ millions)** | **2014** | 2013 |
|---|---|---|
| Total invested assets | **$ 269,310** | $ 232,709 |
| Segregated funds net assets | **256,532** | 239,871 |
| **Assets under management per financial statements** | **$ 525,842** | $ 472,580 |
| Mutual funds | **119,593** | 91,118 |
| Institutional advisory accounts (excluding segregated funds) | **38,864** | 30,284 |
| Other funds | **6,830** | 4,951 |
| **Assets under management** | **$ 691,129** | $ 598,933 |
| Currency impact | **–** | 34,523 |
| **Constant currency assets under management** | **$ 691,129** | $ 633,456 |

**Capital** The definition we use for capital, a non-GAAP measure, serves as a foundation of our capital management activities at the MFC level. For regulatory reporting purposes, the numbers are further adjusted for various additions or deductions to capital as mandated by the guidelines used by OSFI. Capital is calculated as the sum of: (i) total equity excluding AOCI on cash flow hedges; and (ii) liabilities for preferred shares and capital instruments.

**Capital**

| **As at December 31,**<br>**(C$ millions)** | **2014** | 2013 |
|---|---|---|
| **Total equity** | **$ 33,926** | $ 29,033 |
| Add AOCI loss on cash flow hedges | **211** | 84 |
| Add liabilities for preferred shares and capital instruments | **5,426** | 4,385 |
| **Total capital** | **$ 39,563** | $ 33,502 |

**Embedded value** is a measure of shareholders' economic value in the current Consolidated Statements of Financial Position of the Company, excluding any value associated with future new business. Manulife's embedded value is defined as adjusted IFRS common shareholders' equity, with adjustments to reflect the fair value of surplus assets and to exclude goodwill and post-tax intangibles, plus the value of future earnings expected from current in-force business. The latter item is calculated net of the cost of capital, using future mortality, morbidity, policyholder behaviour, expense and investment assumptions that are consistent with the assumptions used in the valuation of our policy liabilities.

**Sales** are measured according to product type:

- For individual insurance, sales include 100% of new annualized premiums and 10% of both excess and single premiums. For individual insurance, new annualized premiums reflect the annualized premium expected in the first year of a policy that requires premium payments for more than one year. Single premium is the lump sum premium from the sale of a single premium product, e.g. travel insurance. Sales are reported gross before the impact of reinsurance.
- For group insurance, sales include new annualized premiums and ASO premium equivalents on new cases, as well as the addition of new coverages and amendments to contracts, excluding rate increases.
- For individual wealth management contracts, all new deposits are reported as sales. This includes individual annuities, both fixed and variable; mutual funds; and, college savings 529 plans. Sales also include bank loans and mortgages authorized in the period. As we discontinued sales of new VA contracts in the U.S., beginning in the first quarter of 2013, subsequent deposits into existing U.S. VA contracts are not reported as sales.
- For group pensions/retirement savings, sales of new regular premiums and deposits reflect an estimate of expected deposits in the first year of the plan with the Company. Single premium sales reflect the assets transferred from the previous plan provider. Total sales include both new regular and single premiums and deposits. Sales include the impact of the addition of a new division or of a new product to an existing client.

# Additional Disclosures

## Contractual Obligations

In the normal course of business, the Company enters into contracts that give rise to obligations fixed by agreement as to the timing and dollar amount of payment.

As at December 31, 2014, the Company's contractual obligations and commitments are as follows:

| **Payments due by period (C$ millions)** | Total | Less than 1 year | 1 to 3 years | 3 to 5 years | After 5 years |
|---|---|---|---|---|---|
| Long-term debt[1] | **$ 4,435** | **$ 2,324** | **$ 365** | **$ 1,138** | **$ 608** |
| Liabilities for capital instruments[1],[2] | **12,610** | **214** | **436** | **430** | **11,530** |
| Liabilities for subscriptions receipts[3] | **2,220** | **2,220** | **–** | **–** | **–** |
| Investment commitments | **5,663** | **2,456** | **1,989** | **719** | **499** |
| Operating leases | **803** | **149** | **147** | **64** | **443** |
| Insurance contract liabilities[3] | **554,684** | **8,701** | **9,512** | **13,229** | **523.242** |
| Investment contract liabilities[1] | **4,310** | **564** | **395** | **368** | **2,983** |
| Deposits from bank clients | **18,384** | **14,046** | **3,299** | **1,039** | **–** |
| Other | **3,546** | **1,371** | **443** | **199** | **1,533** |
| **Total contractual obligations** | **$ 606,655** | **$ 32,045** | **$ 16,586** | **$ 17,186** | **$ 540,838** |

[1] The contractual payments include principal, interest and distributions. The contractual payments reflect the amounts payable from January 1, 2015 up to and including the final contractual maturity date. In the case of floating rate obligations, the floating rate index is based on the interest rates as at December 31, 2014 and is assumed to remain constant to the final contractual maturity date. The Company may have the contractual right to redeem or repay obligations prior to maturity and if such right is exercised, total contractual obligations paid and the timing of payment could vary significantly from the amounts and timing included in the table.

[2] Liabilities for preferred shares – Class A, Series 1 are not included in the contractual obligation table. These preferred shares are redeemable by the Company by payment of cash or issuance of MFC common shares and are convertible at the option of the holder into MFC common shares on or after December 19, 2015.

[3] On January 30, 2015, upon the closing of the acquisition of the Canadian-based operations of Standard Life plc, the issued and outstanding subscription receipts were exchanged for MFC common shares. Therefore, this liability has been extinguished.

[4] Insurance contract liabilities cash flows include estimates related to the timing and payment of death and disability claims, policy surrenders, policy maturities, annuity payments, minimum guarantees on segregated fund products, policyholder dividends, commissions and premium taxes offset by contractual future premiums on in-force contracts. These estimated cash flows are based on the best estimate assumptions used in the determination of insurance contract liabilities. These amounts are undiscounted and reflect recoveries from reinsurance agreements. Due to the use of assumptions, actual cash flows may differ from these estimates (see "Policy Liabilities"). Cash flows include embedded derivatives measured separately at fair value.

## Legal and Regulatory Proceedings

The Company is regularly involved in legal actions, both as a defendant and as a plaintiff. The legal actions naming the Company as a defendant ordinarily involve its activities as a provider of insurance protection and wealth management products, as well as an investment adviser, employer and taxpayer. In addition, government and regulatory bodies in Canada, the United States, Asia and other jurisdictions where the Company conducts business regularly make inquiries and, from time to time, require the production of information or conduct examinations concerning the Company's compliance with, among other things, insurance laws, securities laws, and laws governing the activities of broker-dealers.

Two class actions against the Company have been certified and are pending in Quebec (on behalf of Quebec residents only) and Ontario (on behalf of investors in Canada, other than Quebec). The actions in Ontario and Quebec are based on allegations that the Company failed to meet its disclosure obligations related to its exposure to market price risk in its segregated funds and variable annuity guaranteed products. The decisions to grant leave and certification have been of a procedural nature only and there has been no determination on the merits of either claim to date. The Company believes that its disclosure satisfied applicable disclosure requirements and intends to vigorously defend itself against any claims based on these allegations.

Plaintiffs in class action and other lawsuits against the Company may seek very large or indeterminate amounts, including punitive and treble damages, and the damages claimed and the amount of any probable and estimable liability, if any, may remain unknown for substantial periods of time. A substantial legal liability or a significant regulatory action could have a significant adverse effect on the Company's business, results of operations, financial condition and capital position and adversely affect its reputation. Even if the Company ultimately prevails in the litigation, regulatory action or investigation, it could suffer reputational harm, which could have an adverse effect on its business, results of operations, financial condition and capital position, including its ability to attract new customers, retain current customers and recruit and retain employees.

## Key Planning Assumptions and Uncertainties

Manulife's 2016 management objectives[22] do not constitute guidance and are based on certain key planning assumptions, including: current accounting and regulatory capital standards; no acquisitions; equity market and interest rate assumptions consistent with our long-term assumptions, and favourable investment experience included in core earnings.

[22] See "Caution regarding forward-looking statements" above.

## Quarterly Financial Information

The following table provides summary information related to our eight most recently completed quarters:

| As at and for the three months ended (C$ millions, except per share amounts or otherwise stated, unaudited) | 2014 | | | | 2013 | | | |
|---|---|---|---|---|---|---|---|---|
| | **Dec 31,** | **Sept 30,** | **Jun 30,** | **Mar 31,** | Dec 31, | Sept 30, | Jun 30, | Mar 31, |
| **Revenue** | | | | | | | | |
| Premium income | | | | | | | | |
| Life and health insurance | **$ 4,305** | **$ 4,072** | **$ 3,786** | **$ 3,696** | $ 3,956 | $ 3,879 | $ 3,681 | $ 3,837 |
| Annuities and pensions | **544** | **569** | **446** | **465** | 592 | 490 | 495 | 580 |
| Net premium income | **$ 4,849** | **$ 4,641** | **$ 4,232** | **$ 4,161** | $ 4,548 | $ 4,369 | $ 4,176 | $ 4,417 |
| Investment income | **2,681** | **2,618** | **2,825** | **2,684** | 2,637 | 2,483 | 2,345 | 2,405 |
| Realized and unrealized gains (losses) on assets supporting insurance and investment contract liabilities[1] | **6,182** | **1,561** | **4,093** | **5,256** | (2,788) | (2,513) | (9,355) | (2,961) |
| Other revenue | **2,301** | **2,207** | **2,108** | **2,123** | 2,633 | 1,958 | 2,318 | 1,967 |
| **Total revenue** | **$ 16,013** | **$ 11,027** | **$ 13,258** | **$ 14,224** | $ 7,030 | $ 6,297 | $ (516) | $ 5,828 |
| Income (loss) before income taxes | **$ 724** | **$ 1,392** | **$ 1,211** | **$ 937** | $ 1,854 | $ 1,118 | $ 205 | $ 570 |
| Income tax (expense) recovery | **(17)** | **(287)** | **(234)** | **(133)** | (497) | (172) | 103 | (15) |
| **Net income** | **$ 707** | **$ 1,105** | **$ 977** | **$ 804** | $ 1,357 | $ 946 | $ 308 | $ 555 |
| **Net income attributed to shareholders** | **$ 640** | **$ 1,100** | **$ 943** | **$ 818** | $ 1,297 | $ 1,034 | $ 259 | $ 540 |
| **Reconciliation of core earnings to net income attributed to shareholders** | | | | | | | | |
| Total core earnings[2] | **$ 713** | **$ 755** | **$ 701** | **$ 719** | $ 685 | $ 704 | $ 609 | $ 619 |
| Other items to reconcile net income attributed to shareholders core earnings[3]: | | | | | | | | |
| Investment-related experience in excess of amounts included in core earnings | **(403)** | **320** | **217** | **225** | 215 | 491 | (97) | 97 |
| Direct impact of equity markets, interest rates and variable annuity guarantee liabilities | **377** | **70** | **55** | **(90)** | (81) | 94 | (242) | (107) |
| Impact of major reinsurance transactions, in-force product changes and recapture of reinsurance treaties | **–** | **24** | **–** | **–** | 261 | – | – | – |
| Change in actuarial methods and assumptions | **(59)** | **(69)** | **(30)** | **(40)** | (133) | (252) | (35) | (69) |
| Net impact of acquisitions and divestitures | **12** | **–** | **–** | **–** | 350 | – | – | – |
| Tax items and restructuring charge related to organizational design | **–** | **–** | **–** | **4** | – | (3) | 24 | – |
| **Net income attributed to shareholders** | **$ 640** | **$ 1,100** | **$ 943** | **$ 818** | $ 1,297 | $ 1,034 | $ 259 | $ 540 |
| **Basic earnings per common share** | **$ 0.33** | **$ 0.58** | **$ 0.49** | **$ 0.42** | $ 0.69 | $ 0.54 | $ 0.12 | $ 0.28 |
| **Diluted earnings per common share** | **$ 0.33** | **$ 0.57** | **$ 0.49** | **$ 0.42** | $ 0.68 | $ 0.54 | $ 0.12 | $ 0.28 |
| **Segregated funds deposits** | **$ 6,240** | **$ 5,509** | **$ 5,587** | **$ 6,776** | $ 5,756 | $ 5,321 | $ 5,516 | $ 6,466 |
| **Total assets** (in billions) | **$ 579** | **$ 555** | **$ 536** | **$ 539** | $ 514 | $ 498 | $ 498 | $ 498 |
| **Weighted average common shares** (in millions) | **1,864** | **1,859** | **1,854** | **1,849** | 1,844 | 1,839 | 1,834 | 1,828 |
| **Diluted weighted average common shares** (in millions) | **1,887** | **1,883** | **1,878** | **1,874** | 1,869 | 1,864 | 1,860 | 1,856 |
| **Dividends per common share** | **$ 0.16** | **$ 0.16** | **$ 0.13** | **$ 0.13** | $ 0.13 | $ 0.13 | $ 0.13 | $ 0.13 |
| **CDN$ to US$1 – Statement of Financial Position** | **1.1601** | **1.1208** | **1.0676** | **1.1053** | 1.0636 | 1.0285 | 1.0512 | 1.0156 |
| **CDN$ to US$1 – Statement of Income** | **1.1356** | **1.0890** | **1.0905** | **1.1031** | 1.0494 | 1.0386 | 1.0230 | 1.0083 |

[1] For fixed income assets supporting insurance and investment contract liabilities and for equities supporting pass-through products and derivatives related to variable hedging programs, the impact of realized and unrealized gains (losses) on the assets is largely offset in the change in insurance and investment contract liabilities.

[2] Core earnings is a non-GAAP measure. See "Performance and Non-GAAP Measures" above.

## Selected Annual Financial Information

| As at and for the years ended December 31, (C$ millions, except per share amounts) | 2014 | 2013 | 2012 |
|---|---|---|---|
| **Revenue** | | | |
| Asia Division | **$ 11,958** | $ 8,898 | $ 9,955 |
| Canadian Division | **13,773** | 6,060 | 10,229 |
| U.S. Division | **28,867** | 5,739 | 9,691 |
| Corporate and Other | **(76)** | (2,058) | (775) |
| **Total revenue** | **$ 54,522** | $ 18,639 | $ 29,100 |
| **Total assets** | **$ 579,406** | $ 513,628 | $ 484,998 |
| **Long-term financial liabilities** | | | |
| Long-term debt | **$ 3,885** | $ 4,775 | $ 5,046 |
| Liabilities for preferred shares and capital instruments | **5,426** | 4,385 | 3,903 |
| **Total** | **$ 9,311** | $ 9,160 | $ 8,949 |
| Dividend per common share | **$ 0.57** | $ 0.52 | $ 0.52 |
| Cash dividend per Class A Share, Series 1 | **1.025** | 1.025 | 1.025 |
| Cash dividend per Class A Share, Series 2 | **1.16252** | 1.16252 | 1.1625 |
| Cash dividend per Class A Share, Series 3 | **1.125** | 1.125 | 1.125 |
| Cash dividend per Class A Share, Series 4 | **0.825** | 1.65 | 1.65 |
| Cash dividend per Class 1 Share, Series 1 | **1.05** | 1.40 | 1.40 |
| Cash dividend per Class 1 Share, Series 3 | **1.05** | 1.05 | 1.05 |
| Cash dividend per Class 1 Share, Series 5 | **1.10** | 1.10 | 1.10 |
| Cash dividend per Class 1 Share, Series 7 | **1.15** | 1.15 | 0.94578 |
| Cash dividend per Class 1 Share, Series 9 | **1.10** | 1.10 | 0.63062 |
| Cash dividend per Class 1 Share, Series 11 | **1.00** | 1.00 | – |
| Cash dividend per Class 1 Share, Series 13 | **0.95** | 0.475 | – |
| Cash dividend per Class 1 Share, Series 15 | **0.792021** | – | – |
| Cash dividend per Class 1 Share, Series 17 | **0.336575** | – | – |

## Additional Information Available

Additional information relating to Manulife, including MFC's Annual Information Form, is available on the Company's website at www.manulife.com and on SEDAR at www.sedar.com.

## Outstanding Shares – Selected Information

### Class A Shares Series 1

As at February 12, 2015, MFC had 14 million Class A Shares Series 1 ("Series 1 Preferred Shares") outstanding at a price of $25.00 per share, for an aggregate amount of $350 million. The Series 1 Preferred Shares are non-voting and are entitled to non-cumulative preferential cash dividends payable quarterly, if and when declared, at a per annum rate of 4.10%. With regulatory approval, the Series 1 Preferred Shares may be redeemed by MFC, in whole or in part, at declining premiums that range from $1.25 to nil per Series 1 Preferred Share, by either payment of cash or the issuance of MFC common shares. On or after December 19, 2015, the Series 1 Preferred Shares will be convertible at the option of the holder into MFC common shares, the number of which is determined by a prescribed formula, and is subject to the right of MFC prior to the conversion date to redeem for cash or find substitute purchasers for such preferred shares. The prescribed formula is the face amount of the Series 1 Preferred Shares divided by the greater of $2.00 and 95% of the then market price of MFC common shares.

### Common Shares

As at February 12, 2015, MFC had 1,969,906,989 common shares outstanding.